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Waking up to a Warming World

Prospects for Christian Ethical Deliberation amidst Climate Fears

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For Jessica, Aurora and Marlowe

Abstract

The recent rapid warming of the planet, driven overwhelmingly by human emissions and activities, represents a novel and dire threat to both human and natural systems. It also constitutes an unprecedented global injustice, with those facing the first and, in many cases, the worst impacts being least responsible for causing the problem: the global poor, other species and future generations. Awakening to such a threat also presents a challenge for ethical deliberation, through provoking deep emotional responses that disturb settled identities. In view of all this, the task of ethical deliberation is urgently required. Yet it is itself vulnerable to being derailed by a variety of coping mechanisms that operate to keep the true scale of the problem below the level of our full attention and prevent the necessary frank assessment of what may be required of us. These largely unconscious protective strategies also open the door to those very emotions being exploited by the cultural, economic and political forces primarily responsible for the crisis in the first place. Hence, superficial and inadequate responses proliferate while many feel paralysed into inaction.

In the face of this threat to thought, this project seeks to articulate an identity and stance based on Christian theological resources that opens up new space for ethical deliberation in the face of climate fears. Instead of being paralysed by such fears, this thesis argues that fear can instead illuminate and motivate when it is resituated in the service of love through solidarity with the suffering Christ, the poor and with the whole community of creation.

Do we have the courage to face the realities of our time and allow ourselves to feel deeply enough that it transforms us – and our future?

Chris Jordan

Another world is not only possible, she is on her way. On a quiet day, I can hear her breathing.

Arundhati Roy

To hope is to give yourself to the future – and that commitment to the future is what makes the present inhabitable.

Rebecca Solnit

God has joined us so closely to the world around us that we can feel the desertification of the soil almost as a physical ailment, and the extinction of a species as a painful disfigurement

Pope Francis

Contents

I declare that this thesis was composed by myself, that the work contained herein is my own except where explicitly stated otherwise in the text, and that this work has not been submitted for any other degree or processional qualification except as specified. Parts of this work have been published in "Doom, Gloom and Empty Tombs: Climate Change and Fear" in *Studies in Christian Ethics* 24.1 (2011): 77- 91 and "Green Future: Theology and the Future of the Earth" in *Theology and the Future: Evangelical Assertions and Explorations* (eds. Trevor Cairney and David Starling; London: T&T Clark, 2014), 231-46.

Signed: Date: 15th December 2017

Introduction

Anthropogenic climate change is a real and present danger to human society and virtually all planetary ecosystems. Responding well is complex.

What kinds of people are capable of sustained ethical deliberation concerning the novel and often overwhelming challenge of climate change? For most people, awakening to the full scale and nature of global warming is a significant shock. Learning about the issue can precipitate a variety of powerful and disquieting emotions, and bring into question some cherished notions and assumptions. This thesis is an attempt to explore the contours of this experience and the possibilities for Christian ethical thought and formation that it problematises and energises. The focus is not so much, "what ought we to do?", but "what kind of people do we need to be in order to think well about that very question?" The former inquiry will have answers that are specific to the various social locations of the questioner. It is also a question that has received much consideration from both within and without the Christian church.[1] We are not aiming at a comprehensive (or even outline sketch of) climate ethics, but at articulating some of the theological and psychological conditions of possibility for engaging the task of ethical deliberation that is both demanded and problematised by a warming world.

This project is also not primarily attempting to answer one subset of this broader question, namely "what ought we to *think* now?" This too is important and intricate. An analysis of the cultural patterns of both behaviour and thought that have led us into this mess and suggestions for new conceptions or for the recycling of old ones are pressing needs of the hour, which will be touched upon but not comprehensively addressed.

Instead, this thesis asks about the conditions under which moral thought is even possible today. It will investigate the threats to reflection upon the question

[1] For some fine examples of volumes on climate ethics, see: Michael Northcott, *A Moral Climate: The Ethics of Global Warming* (London: Darton, Longman and Todd, 2007); Donald A. Brown, *Climate Change Ethics: Navigating the Perfect Moral Storm* (London: Earthscan, 2013); George Monbiot, *Heat: How can we stop the planet burning* (London: Penguin, 2006) and the collection of many thinkers in *Climate Ethics: Essential Readings* (eds. Stephen Gardiner, Simon Caney, Dale Jamieson and Henry Shue; Oxford: Oxford University Press, 2010).

"what ought we to do (and think) now?" and the ways in which the process of attempting to answer it might be short-circuited or the ethical landscape flattened out by fear such that genuine ethical thought becomes attenuated. It is opening the theological space that enables ethical reflection to take its time without being hurried into an answer by climate fears. What is the character (rather than content) of ethics during a predicament such as the one we presently face? How might the Christian gospel shape and provide for the moral self at this time? What might enable the possibility of ethical deliberation even (and perhaps especially) in today's adverse and apparently hopeless conditions?

Finally, the project is interested not only in the *possibility* of, but also the *prospects for* Christian ethical deliberation amidst climate fears. That is, our goal is not simply the preservation of Christian ethical thought against various numbing fears, but also about how these fears may even be transformed into a source of spiritual and moral renewal.

Awakening twice over

There are thus two awakenings to which the thesis title refers. First is the experience of becoming aware of the climate crisis, a process that typically generates a range of uncomfortable and challenging emotional responses, as will be explored in the opening chapters. For many people, this awakening can represent a serious threat to the sense of self and to some cherished cultural narratives that shape our perceptions of the world around us. The metaphor of waking up thus points towards this sense of disorientation, of seeing things anew, of needing to re-establish what is and is not real. In this way, it is closely connected to the concept of novelty that is a key part of this argument. The climate crisis is an unprecedented context for humanity, which brings human ethical agency into both question and focus in fresh ways.

More than this, speaking of waking as an ongoing process acknowledges that for many people, this is information that has yet to become integrated into daily life, let alone into the political, economic and cultural institutions that shape our society. If waking is an ongoing experience, many are still effectively in slumber, yet to make the cognitive and affective transition into an altered state of consciousness. The

climate crisis remains on the margins of attention, and when it is addressed, it is done so from within existing assumptions and perspectives.

The image of waking up also has a second set of resonances in this argument. After awakening to the nightmare of the climate crisis and experiencing its paralysing effects on ethical deliberation, there yet remains the possibility of a second profound shift in perspective, one that renews and transforms the possibilities of ethical thought.

This shift has been variously described by ecological ethicists and theologians. David Atkinson uses this language of waking up, though without particularly exploring the metaphor.[2] Paul Gilding speaks of "the Great Awakening", with its echoes of religious revivals, to refer to a broader sociological reality "when the dam of denial breaks" and rapid cultural, economic and political changes become possible.[3] Joanna Macy and Chris Johnstone write of a similar societal reality they argue has already begun, albeit at a slower pace, and which they name "The Great Turning".[4] At a personal level, they explain that joining the Great Turning requires "Seeing with New Eyes", gaining a new, wider and ecologically grounded sense of self, power, community and time.[5] Pope John Paul II spoke of an "ecological conversion", to name and welcome a more or less gradual cultural shift towards greater awareness of ecological limits that was spreading in the second half of the twentieth century, without necessarily being connected to Christian faith or conversion to Christ at a personal level.[6]

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[2] David Atkinson, *Renewing the Face of the Earth: A theological and pastoral response to climate change* (Norwich: Canterbury Press, 2008), 1, 4. Clive Hamilton also begins *Defiant Earth: The Fate of Humans in the Anthropocene* (Cambridge: Policy, 2017) with this language, though also without particularly exploring it.

[3] Paul Gilding, *The Great Disruption: How the Climate Crisis Will Transform the Global Economy* (London: Bloomsbury, 2011), 102-107, 115-122.

[4] Joanna Macy and Chris Johnstone. *Active Hope: How to Face the Mess We're in without Going Crazy* (Sydney: Finch Publishing, 2012), 13-84.

[5] Joanna Macy and Chris Johnstone. *Active Hope*, 85-162.

[6] *Catechesis*, 17th January 2001, §4. Online: http://w2.vatican.va/content/john-paul-ii/en/audiences/2001/documents/hf_jp-ii_aud_20010117.html. Accessed 4th December 2016. This perspective was itself grounded in his discussion of humanity's failed stewardship in his 1995 encyclical *Evangelium vitae*, §§ 10, 27, 42. Online: http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_25031995_evangelium-vitae.html. Accessed 4th December 2016.

The phrase has been picked up and developed by Pope Francis into a whole section of his recent encyclical *Laudato si': On Care for Our Common Home*.[7] Francis personalises the concept and ties it directly to Christian discipleship, as a necessary internal experience for believers in today's context, "whereby the effects of their encounter with Jesus Christ become evidence in their relationship with the world around them".[8] More than just accepting new ideas or perspectives, Francis claims that what is needed is

> an ecological spirituality grounded in the convictions of our faith, since the teachings of the Gospel have direct consequences for our way of thinking, feeling and living.[9]

Ecological conversion is thus for Francis a "commitment", an "interior impulse", an "appropriation of spiritual treasures", a "change of heart" or "repentance", and a living out of Christian vocation.[10] This is deeply personal, but also requires expression in community networks greater than merely "the sum of individual good deeds".[11] Francis' ecological conversion is therefore a personal experience of ongoing transformation, both surprising and sought, which feeds into a broader social change. It is a reorientation to a novel and emerging global situation, yet one based on connecting more deeply with old ideas, practices and convictions.

The second awakening to which my title refers embraces much of the conceptual framework of Francis' ecological conversion but translates it into the language of waking up. There are three reasons to prefer this image. First, as Oliver O'Donovan has shown, it is an important and flexible scriptural motif when speaking of the renewal of moral agency.[12] While 'conversion' (or 'convert') is relatively rare in the scriptures (Acts 15.3; 1 Corinthians 16.15; 1 Timothy 3.6), the metaphor behind it, of turning, is quite common. Yet in contrast with awakening, most of the scriptural examples of turning as a moral category are either negative (turning away from God as moral failure) or where they are positive, focus on turning *from*, rather

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[7] Pope Francis, *Laudato si': On Care for Our Common Home* (The Vatican, 24th May 2015), §§216-221. Online: http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.
[8] *Laudato si'* §217.
[9] *Laudato si'* §216.
[10] *Laudato si'* §216-18.
[11] *Laudato si'* §219.
[12] Oliver O'Donovan, *Self, World, and Time: Ethics as Theology* (Volume 1; Grand Rapids, MI: Eerdmans, 2013), 6-17, 105-33.

than turning *to* (1 Kings 13.33; 2 Chronicles 6.26; 7.14; Isaiah 59.20; Jeremiah 15.7; 36.7; Ezekiel 18.22-23, 30; 33.8-14; Jonah 3.8). Second, the language of wakefulness highlights the function of *attention* in ethical deliberation, implicitly affirming that failure to give due consideration to something is itself of moral significance, that being asleep can be a form of culpable ignorance. Finally, using the language of wakefulness or waking up rather than ecological conversion has the benefit of avoiding misunderstanding in some contexts. Perhaps especially in evangelical discourse, 'conversion' is often taken to refer exclusively to a decisive and salvific event of fundamental reorientation to Christ (Acts 3.19; 14.15; 26.18-20; 1 Thessalonians 1.9; cf. Deuteronomy 30.10). In such contexts, the language of ecological conversion risks being misinterpreted as an alternative to conversion to Christ, rather than a particular consequence or manifestation of it.

Outline of the argument

After this introduction articulates some basic assumptions, distinctions and contexts, the argument will proceed in six main chapters, each taking a primary text as interlocutor. The task is necessarily somewhat interdisciplinary, drawing upon not only texts in theological ethics, but also psychology, philosophy, climate science and history.[13]

Chapter One sets up our question in more detail, exploring the particular constellation of features that make climate change especially prone to generating a range of fears, as well as outlining some of the common psychological coping mechanisms many use to hold these fears at bay. While engaging with a range of sources, the primary focus will be Stephen Gardiner's *A Perfect Moral Storm: The Ethical Tragedy of Climate Change*.[14]

Chapter Two relates climate fears backwards to some historical examples of fear-based texts that helped to spark the modern environmental movement, in

[13] This is also not an attempt at a climate politics or political theology, nor an economics, law or comparative assessment of possible technologies, nor even a theory of social change. Our focus is on the kind of Christian identity that is capable of facing up to the challenges of wrestling with the ethical complexities found in all these fields.

[14] Stephen Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford: Oxford University Press, 2011).

particular Rachel Carson's *Silent Spring*.[15] Seeking these partial analogues helps to highlight the novel features of the current climate threat, as well as how appeals to fear have functioned to shape the ethical field in some previous circumstances.

Chapter Three picks up the question of novelty directly and explores it in conversation with both scriptural examples and Hannah Arendt's philosophical notion of natality in *The Human Condition*.[16] This helps to expose the novel temporal structure of anthropogenic climate change and how it deepens the challenge to ethical deliberation.

Having traced the nature, historical analogues and novelties of the climate crisis in the first three chapters, Chapter Four investigates one attempt to turn fear into a tool for ecological ethics in *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* by Hans Jonas.[17] This is ultimately a false road for ethics and thus represents a contrast with the positive account in the final two chapters.

Chapter Five lies at the heart of the argument, and is the point at which the thesis becomes more explicitly theological. It picks up an intriguing lesser-known work of Hans Urs von Balthasar titled *Anxiety and the Christian*, which offers a scriptural, theological and philosophical account of its theme, centred on a reading of Christ's experience of *angst* in Gethsemane.[18] This then becomes a way of distinguishing between destructive fears and the possibility of a redeemed fear that takes the form of a deep affective concern for the plight of one's neighbour. Some implications of this move for prudence, imagination and the expansion of neighbourliness and moral horizons begin to be unpacked.

Chapter Six engages one of the most significant recent milestones in Christian ecotheology and ethics, Pope Francis' 2015 encyclical *Laudato si': On Care for Our Common Home*.[19] Including discussion of a number of scriptural and apocryphal texts, the chapter fleshes out some theological perspectives that ground a

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[15] Rachel Carson, *Silent Spring* (London: Penguin, 1965 [1962]).
[16] Hannah Arendt, *The Human Condition* (2nd ed.; Chicago: Chicago University Press, 1958).
[17] Hans Jonas, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (trans. Hans Jonas and David Herr; Chicago: University of Chicago Press, 1984 [1979]).
[18] Hans Urs von Balthasar, *Anxiety and the Christian* (trans. Dennis D. Martin and Michel J. Miller; San Francisco: Ignatius Press, 2000 [1952]).
[19] Pope Francis, *Laudato si': On Care for Our Common Home* (The Vatican, 24th May 2015). Online: http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

Christian identity capable of the work of honesty, grief and hope necessary for an other-centred care for the poor and the Earth that lies at the heart of Christian ethical deliberation on climate change.

The Conclusion draws the threads together and gestures to how the identity and perspectives in chapters five and six may also open a way towards productive Christian political thought regarding climate.

Now, before plunging into the opening chapter, the remainder of this introduction will clarify some important assumptions, distinctions and contexts.

Climate science 101

One of the basic assumptions of this thesis is that the mainstream understanding of climate science is accurate and that there is a genuine and serious danger associated with human emissions of carbon dioxide and other climate-disrupting activities. This is not a scientific thesis and does not hope to adjudicate genuine scientific disputes. At one level it is sufficient to note that this threat has *prima facie* credibility and is accepted by large numbers of people in order to pursue our main argument. Yet the public and political controversy over almost every aspect of climate science occurs in the almost complete *absence* of actual scientific dispute about the core claims of climate science. The consensus on the existence of observable and dangerous anthropogenic global warming amongst experts, within the peer-reviewed literature and amongst major scientific organisations is extraordinary and has existed largely unchallenged since the early 1990s. Numerous studies that have attempted to quantify the level of consensus have pegged it at 97% or more.[20]

Yet despite this, the level of public acceptance of mainstream climate science as measured in dozens of polls has frequently been below 50% in Australia and the USA, and only somewhat higher in the UK. As will be discussed in the next chapter, a great deal of this controversy has been fostered by a deliberate misinformation campaign by vested interests, in many ways parallel to and even connected with the misinformation campaign run by the tobacco industry regarding the public health

[20] E.g. John Cook, Dana Nuccitelli, Sarah A Green, Mark Richardson, Bärbel Winkler, Rob Painting, Robert Way, Peter Jacobs and Andrew Skuce, "Quantifying the consensus on anthropogenic global warming in the scientific literature" in *Environmental Research Letters* 8/2 (2013), doi:10.1088/1748-9326/8/2/024024. This paper also cites previous studies that reached similar results using different methods.

dangers of smoking.[21] Therefore, this thesis will not only accept the mainstream consensus but seeks to illuminate something of the context within which that consensus is rejected by so many.

Climate science is a huge discipline with thousands of peer-reviewed articles published every year and many areas of active research. The regular multi-volume reports produced by the UN Intergovernmental Panel on Climate Change (IPCC) run to thousands of pages with citations of the work of many thousands of researchers. Complexity and public controversy can tempt some to put the whole thing in the 'too hard' basket. Yet gaining a grasp on the basics, sufficient to guide much ethical deliberation (or at least a discussion of its possibilities), can be gained relatively quickly.

The most salient points can be expressed in four simple questions. Is it happening? Is it us? Is it bad? Can we do anything? The answer to all four is yes.[22]

1. Is it happening?

Multiple independent lines of evidence all point to the earth as a whole rapidly gaining heat: rising average atmospheric and ocean temperatures; declining Arctic sea ice, glacier mass, ice sheet mass and snow cover; rising sea levels, permafrost thaw and atmospheric humidity; the pole-ward and upward movements of species and the shifting timing of seasonal events (spring earlier, autumn later). The planet is warming more rapidly than at any time in the history of human civilisation and is

[21] See Naomi Oreskes and Eric Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (London: Bloomsbury, 2010); James Hoggan*, Climate Cover-Up: The Crusade to Deny Global Warming* (Vancouver: Greystone Books, 2009); Clive Hamilton, *Scorcher: The Dirty Politics of Climate Change* (Black Inc, 2007); George Monbiot, *Heat: How can we stop the planet burning* (London: Penguin, 2006), 20-42.

[22] In addition to the dozens of detailed synthesis reports from reputable scientific bodies and numerous climate science textbooks, many scientific institutions have put out their own more accessible and less technical guides for the public. One excellent such resource is a joint publication of the UK's Royal Society and the US National Academy of Sciences, *Climate Change: Evidence and Causes* (London: Royal Society and National Academy of Sciences, 2014) Online: https://royalsociety.org/~/media/Royal_Society_Content/policy/projects/climate-evidence-causes/climate-change-evidence-causes.pdf. Accessed March 2014. Another with a particular focus on an Australian context is: Climate Commission Secretariat, *The Critical Decade: Climate Change Science, Risks and Responses* (Canberra, Australia: Climate Commission, 2013). Online: http://www.climatecouncil.org.au/critical-decade-risks-responses. Accessed July 2014. For a standard textbook, Pittock, Barrie A. *Climate Change: The Science, Impacts and Solutions.* (2nd ed.; Melbourne, Australia: CSIRO Publishing, 2009).

rapidly leaving the relatively stable climate of the last 10,000 years during which agriculture and cities developed.

2. Is it us?

Certain gases in the atmosphere allow visible sunlight in but trap some of the outgoing infrared radiation, keeping Earth much warmer than it would otherwise be, in a manner similar to a greenhouse. By burning coal, oil and gas, as well as deforestation and some other activities, humans have been rapidly increasing the concentration of atmospheric greenhouse gases since the industrial revolution, and especially in the last few decades. The basics of the greenhouse effect have been understood for over a century and the idea that human activities might lead to warming was first suggested in the late nineteenth century. The data to confirm these ideas has only emerged in the last few decades.

Once all other known factors are accounted for, recently observed warming cannot be explained without including a decisive contribution from human emissions, especially carbon dioxide from burning coal, oil and gas. Multiple tell-tale 'fingerprints' in the observed changes point to human emissions of greenhouse gases as the primary culprit.

This is the explicit or implicit position of more than 97% of peer-reviewed papers over the last twenty years, of more than 97% of the top experts and of around two hundred scientific bodies of national or international standing to have considered all the evidence (there are none that have taken an official stance of disagreement).[23] Consensus does not make good science, but good science makes consensus when there is a consensus of data. No other account has been able to explain all the data.

3. Is it bad?

The likely consequences of warming are complex, but overwhelmingly negative. The earth has been far warmer and far colder in the deep past, yet human civilisation has only experienced a very narrow range of global temperatures. The key to severity of impacts is not simply the scale but also the rate of change. We are in the early stages

[23] Cook, et. al. "Quantifying the consensus". A list of scientific organisations that officially accept the consensus position can be found at https://www.opr.ca.gov/s_listoforganizations.php. Accessed March 2014.

of a path taking us far out of anything experienced by humanity at a rate many times faster than anything in human history.

Negative impacts are already accumulating in physical systems (e.g. worsening heat waves, droughts, floods, bush fire danger, ice melt, sea level rise), ecological systems (e.g. coral bleaching, shifting species distribution, salt water intrusion) and human systems (e.g. agricultural yields, economic costs, public health harms, cultural displacement, and heightened pressure around various regional tensions). Climate change multiplies existing familiar threats and many of the biggest consequences are likely to be indirect: fresh water stress, food security, displacement and conflict.

The current trajectory of greenhouse gas emissions in the absence of effective policies to the contrary, could well see four degrees Celsius or more of global average surface temperature rise by 2100. This is probably not compatible with globalised industrial civilisation (at least in anything like its present form), would radically alter virtually every ecosystem on the planet and is unlikely to be stable, with feedbacks leading to further warming after 2100. Long-term sea level rise would be tens of metres, displacing hundreds of millions of people. This rate of change is likely to be beyond adaptation for most human and natural systems. Even the agreed international target of two degrees has very serious costs and dangers, and the much-discussed 2015 Paris Agreement still contains national commitments that could well see three or more degrees of warming by late this century.

The scale of the threat is difficult to overstate.[24] The plausible worst-case scenarios involve the extinction of over half of all extant species, the collapse of most agricultural output, the displacement of tens or hundreds of millions by rising seas and large regions of the tropics rendered uninhabitable. The knock-on geopolitical effects of such calamity can be summarised simply by noting the scarcity of historical examples in which significant declines in social prosperity were not accompanied by significant increases of violence within or between societies.

[24] Some commentators still manage it, such as Professor Guy McPherson, who claims the near-term extinction of *homo sapiens*, and possibly of all multi-cellular life on Earth, is now inevitable: Guy McPherson, *Going Dark* (Baltimore: PublishAmerica, 2013).

4. Can we do anything?

The more greenhouse gases we emit, the hotter it will get and the faster things will change. The less we emit, the slower and smaller the warming, reducing the damage and giving us more time to adapt. Due to lags in the climate system, the planet will keep warming for a while even once we cut most of our emissions. So the sooner we begin, the better. While some further warming is now inevitable, the worst effects are still very much avoidable. So we will need to manage changes that are now unavoidable, but also avoid changes that will be unmanageable.

The key to the latter is leaving the vast majority of fossil fuel reserves in the ground.[25] The required changes to slash emissions and stabilise temperatures are immensely challenging, but technically feasible, especially when combined with quite feasible reductions in energy use amongst the most profligate economies. Alternative sources of energy exist to supply the world's needs with clean energy. There is no just or sane path that does not involve using significantly less energy, smarter energy and cleaner energy. Large and speedy changes are needed at cultural, economic, infrastructural, behavioural and political levels.

Renewable energy has begun to take off around the world, with the last few years seeing more new renewable than new fossil fuelled electricity generating capacity added globally. Avoiding the worst outcomes will require this trend to be accelerated, as well as switching other energy uses away from fossil fuels and basically ending deforestation.

The distribution of responsibility for this threat is complex. While governments and carbon-intensive corporations bear much of the burden, this does not excuse citizens, especially in the face of the failure of existing institutions of leadership, to address the issue effectively. The spatial and temporal inequalities in the distribution of responsibility for emissions and severity of impacts mean that climate change is inescapably an issue of international and intergenerational injustice.

Climate change vs. global warming

It will be useful to clarify some basic terms and distinctions.

[25] To fill out the claims made in this section, see Climate Commission, *The Critical Decade*, 79-87.

Both terms have been in frequent popular and scientific use for decades and they are often used interchangeably, though there has been a measure of confusion in some circles about their relationship.

Conceptually, climate change is not strictly synonymous with global warming, since the latter is really one manifestation of the former. Other manifestations include shifting patterns in the hydrological cycle (generally trending towards a more intense cycle, with greater extremes of wet and dry), the progressive melting of the cryosphere, changes to temperature distributions, wind patterns, ocean currents and shifts in phenology (the timing of annual and seasonal events such as animal migrations and hibernations, plant flowerings, peak stream flows and so forth). Global warming does not mean that every location gets warmer every day or every year, but the total heat content of the Earth system rises. Most commonly, global warming is taken to refer to a warming trend over decadal scales in the average global surface temperature, but if the warming is truly global, this includes more than just atmospheric temperatures. Since the vast majority of the extra energy resulting from an enhanced greenhouse effect goes into the oceans (and other fractions go into melting ice and warming soils), concentrating on atmospheric temperatures alone is somewhat narrow and potentially misleading.

Technically, it is more correct to speak of global heating as the cause of the phenomena grouped under the concept climate change (one of which is global warming), since what is driving the whole thing is the increasing amount of energy entering and remaining within the atmospheric-ocean-earth system, yet for our purposes such technical precision is unnecessary.[26]

Climate change vs. ecological degradation

Anthropogenic climate change is far from the only significant aspect of global ecological change visible today. There are a host of other ecological issues that demand sustained ethical attention: biodiversity loss; fresh water stress; air, water and soil pollution; ocean acidification; habitat destruction; soil degradation; animal cruelty (especially in intensive industrial agricultural systems); and so on. Yet this

[26] Eric Conway, "What's in a name? Global Warming vs. Climate Change" (Washington D.C.: NASA, 2008). Online: http://www.nasa.gov/topics/earth/features/climate_by_any_other_name.html. Accessed September 2011.

thesis will focus on anthropogenic climate change (typically shortened simply to "climate change"). It is the most prominent ecological threat in the public imagination; it arguably presents the most serious impacts for humanity on a decadal timescale; it complicates and worsens almost all the other issues; and it is one of the most difficult to ameliorate, with its causes intimately connected to major centres of geopolitical power and to the engine of the global economy in fossil-fuelled energy systems.

Despite widespread misunderstandings of certain aspects of climate science (e.g. emissions vs. concentrations, the likely rate of sea level rise, the temporal lag between emissions and rising atmospheric temperatures), climate change also functions for many people as a symbol of a broader number of ecological issues.

Climate change is a threat multiplier, interacting in all kinds of complex ways with a range of other threats. Sometimes sharing the same cause (e.g. ocean acidification), sometimes intensifying them (e.g. biodiversity decline), and sometimes joining with them to produce common second order threats (e.g. soil degradation and their joint effect on food security). As a global problem, it is implicated in a wide variety of other issues (e.g. conflict, resource access, fresh water stress, forced migration, and so on).

Climate change shares many of its ethically interesting features with other ecological problems, but few if any others have all the features of climate change, making it something of a paradigmatic problem with other issues sharing some sub-set of its features.

Assumptions and contexts

There are a number of other assumptions and contexts I bring to this thesis that may be worth articulating. Theologically, I belong to an orthodox Anglican tradition that values the holy scriptures, reason and dialogue, and respects the long history of Christian reflection. My background and present ecclesial context is in Sydney, Australia where the dominant Anglican tradition is a distinctive flavour of conservative evangelicalism that places a high value on doctrinal purity and verbal evangelism, and which can be somewhat suspicious of emphasising issues of justice lest they distract from such proclamation.

Nonetheless, most Australian Christians (including Sydney Anglicans) accept the inclusion of caring for creation as one aspect of Christian discipleship, but only a relatively small number see it as any kind of priority.[27] Acceptance of climate science generally follows patterns in political identity that are typical of an Australian context, with more theologically conservative individuals more frequently rejecting the mainstream scientific understanding.[28]

I am also writing in an Australian political context where climate politics has been hotly contested, partisan and divisive for many years, playing a significant role in the fortunes of multiple prime ministers and governments. Australia is a major extractor and exporter of coal, on which it also relies heavily for domestic electricity production.

These contexts shape the scope of the first person plural 'we' or 'us' throughout the text. When analysing the problem in the opening chapters, this usually refers to humanity as a whole, or sometimes that wealthier subsection of it (including Australia) that bears particular responsibility for causing climate change. In the final two chapters, when exploring more constructive theological terrain, the 'us' in question is frequently from the perspective of Christian believers.

I acknowledge that I have completed the writing of this thesis on the land of the Cadigal people of the Eora nation, land that was never ceded. I pay my respects to their elders, past, present and future. I have witnessed firsthand the conflict between indigenous land ownership and mining company activities, and have participated in non-violent direct action against the expansion of coal mining in rural New South Wales, particularly where this has encroached upon both biodiversity hotspots and Aboriginal sacred sites. It is with regret I admit the paucity of my engagement with majority world or indigenous voices as interlocutors in this thesis. My primary context is a discussion within the churches of wealthy nations, yet the absence of such voices is an omission I have only recently been awakening to, and which I hope to rectify in future work.

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[27] Miriam Pepper and Rosemary Leonard, "How Ecotheological Beliefs Vary Among Australian Churchgoers and Consequences for Environmental Attitudes and Behaviors" in *Review of Religious Research* 58:1 (2015), 101-24.

[28] Miriam Pepper and Rosemary Leonard, "Climate Change, Politics and Religion: Australian Churchgoers' Beliefs about Climate Change" in *Religions* 7(5):47 (2016). doi:10.3390/rel7050047.

A further assumption of this thesis is that a rich emotional life is ethically relevant, rather than some kind of distraction from rationality or in competition with wise deliberation. Martha Nussbaum has argued at length for such a position in *Upheavals of Thought: The Intelligence of Emotions*.[29] When exploring the place of emotional responses to climate change, the goal is not to seek an unruffled calm, but to foster a stance that can engage reality with healthy emotional attentiveness.

With those provisos in mind, let us turn to the problem at hand.

[29] Martha C. Nussbaum, *Upheavals of Thought: The Intelligence of Emotions* (Cambridge: Cambridge University Press, 2003).

Chapter One

Why are We Failing on Climate Change?

Stephen Gardiner and Ethical Paralysis

The climate crisis and the ethical crisis

Today, we face two distinct yet inseparable crises. First is the climate crisis itself, the accelerating departure of a global planetary system from the relative stability of the Holocene, a stability that turns out to have been one of the fundamental conditions of possibility for human civilisation, and a destabilisation driven overwhelmingly by the accumulation of human actions. The climate crisis therefore embraces all the threats to human social order, identity and continuity along with the wellbeing of the rest of the biosphere. A series of novel transformations usher us into a world growing more hostile to our habitation than at any point in our history. This crisis is a complex web of chemical, geophysical, ecological, economic, political, social and cultural processes that present themselves as one of the distinctive features of contemporary existence. Its causes and impacts can be described through any of these multiple mutually illuminating lenses. So at one level, it is a crisis consisting of the relocation of a trillion tonnes or more of carbon from basically inert geosequestration into the active cycle of atmosphere, oceans and biosphere. At another level it is a failure of global institutions to manage risk, or of the economy to account for externalities, or of individuals to live within creaturely limits. The impacts go beyond the primary changes to the planetary energy budget and its shifting patterns of distribution, flowing on to the secondary effects of degrading the abundance and diversity of ecosystems and then through to tertiary impacts upon human systems affected by primary or secondary impacts. It is here, at the tertiary level of public health, economics, culture, infrastructure and geopolitical stability, that the most dramatic yet least predictable effects are likely to be found. The nature, scale and novelties of those threats will be considered below.

Yet the crisis that this project is most concerned with is not directly the climate crisis, but a second order crisis, namely, the effect upon ethical thought that often occurs when awakening to the climate crisis. The scale and nature of the threats

represented in the climate crisis confound ethical thought and action. For many people, I will argue, as awareness of the climate crisis begins to dawn, ethical deliberation and resolution become problematic, leading to a widespread pattern of dysfunctional responses. The novel constellation of features exhibited by the climate crisis precipitates a suite of common emotional responses generally regarded as uncomfortable and undesirable experiences: fear, sorrow, guilt, helplessness, anger, betrayal, confusion, horror. Together, these experiences are called "pain for the world" by ecological psychologists Joanna Macy and Chris Johnstone.[1] We instinctively recoil from such pain and seek ways to avoid it, minimise it, or at least cope with it. While many of these coping strategies may be psychically effective in reducing or avoiding discomfort, a number of typical strategies turn out to be counterproductive when considered from the perspective of the climate crisis.[2]

Thus, this second order *ethical* crisis is the very difficulty of wrestling with the task of making appropriate ethical judgements and resolutions regarding our climate crisis. In particular, the novelty and complexity of the threats frequently evokes a group of interrelated *fears* which may paralyse or short-circuit ethical thought, offering tempting short-cuts that fail to take the present situation with sufficient honesty and seriousness.

We shall focus on fear because it is a common thread in most of the other responses. For instance, while fear is anticipatory, guilt and betrayal are predominantly retrospective, yet both involve a prospective fear. Guilt compromises the preferred picture of the self in recognising responsibility for wrongdoing. The wrong that has been done thus represents a threat to the integrity of the self and so guilt evokes fear of losing oneself. Betrayal is similar, but where the fear of compromised integrity is directed towards one who had been trusted, rather than oneself. Or take helplessness and anger, which as a pair can be seen as modulations

[1] Joanna Macy and Chris Johnstone, *Active Hope: How to Face the Mess We're in without Going Crazy* (Sydney: Finch Publishing, 2012), 57-84.

[2] How widespread are such anxieties? While it can be difficult to quantify, particularly since – as discussed below – many people actively suppress these emotions, nonetheless a revealing 2015 paper by Melanie Randle and Richard Eckersley investigated perceptions of catastrophic threats (including, though not limited to, climate change) in four Anglophone nations (USA, UK, Australia and Canada) and found that a majority of respondents thought it more likely than not that our way of life would end within the next hundred years, with a quarter also expecting humanity to be wiped out. "Public perceptions of future threats to humanity and different societal responses: A cross-national study" in *Futures* 72: 4-16. doi:10.1016/j.futures.2015.06.004. Accessed July 2016.

of fear, depending on whether the subject has a sense of agency in the face of a threat. Helplessness is the experience of fearing loss or harm in a situation where the subject perceives a lack of agency; anger is also provoked by fear of loss or harm, but differs from helplessness because the subject can act, even if it is just venting rage. Confusion makes us fear losing a coherent picture of the world; horror makes us fear losing a comfortable picture of the world.[3]

What do we fear when we fear climate change?

Fear is often associated with the unknown. We fear that which we cannot yet comprehend, that which is alien and so threatens the integrity of our understanding. An anticipated experience that does not correspond to previous experience is a provocation to the imagination, which supplies possible analogues in an attempt to render the alien graspable. Yet unless something is recognised as threat, then there is no fear. The pre-industrial astronomer who notices solar flares does not yet have an idea of why they might be threatening, since not only is knowledge of the nature of solar flares as yet beyond his grasp, so is a society deeply dependent upon complex systems of electrical infrastructure that are vulnerable to solar electromagnetic storms.

Anthropogenic climate change is taking us into novel waters (as will be explored in Chapter Three). We have already likely departed from the average

[3] Note what is *not* being referred to by the phrase *ethical crisis*: namely, the historical faults that led to the patterns of behaviour that have proved so destructive to the stability of the climate. It may well be that certain intellectual, political, theological and moral failures lie behind the great drivers of climate-altering emissions. Our increasing technological mastery may be tied to hubris, a false grasp of human dominion, a mechanistic view of the non-human world and/or a false eschatology of self-salvation. The hyper-industrialism that helps drives rising energy demand may be a culpable obscuring of the finitude of creation, a false anthropological humility that assumes the impossibility of humanly generated planetary consequences, and/or a historical forgetfulness that neglects deeper reflection upon the sheer novelty of present productivity. Implicit in the growth fetish that has dominated governmental priorities may be a narrowing of political vision to economic management, a debt-fuelled economic necessity behind the perpetual generation of wealth creating ultimately unpayable future obligations and/or a hidden desire to construct a modern Tower of Babel. Our consumerist large-footprint lifestyle may stem from an attenuated moral imagination that cannot imagine human flourishing beyond the slaking of animal desires, a corruption of desire by manipulative advertising into restlessness whose transcendent impulse aims disappointingly low and/or a failure to attend to the inner life of contemplation. Some combination or all of these may be true. A healthy rounded response to the climate crises will probably require a societal reckoning of these missteps, repentance for them, resolution to avoid them, some measure of redress for their damages, and a reorientation of beliefs and practices into a renewed moral life. But these matters belong to the moral, philosophical, theological and political aspects of the first order crisis, rather than the crisis for moral thought that is our focus.

surface temperature range of the Holocene, and are heading deep into unknown territory. The physical impacts and their ecological, economic, social and political implications do not fall neatly into familiar categories. Of course there are historical analogies. We are familiar with societies in decline, societies that have suddenly and violently collapsed, societies that have faced great natural disasters or hostile forces from within or without. The imagination reaches for great crisis periods in history where a social order has faced threats that have transformed or even overwhelmed it: the collapse of complex societies like the Lowland Classic Maya or the decline of the Western Roman Empire,[4] or perhaps the social upheavals associated with the Black Death in medieval Europe. While these provide some useful parallels, dissimilarities abound. A globalised industrial civilisation of seven billion and rising with technological prowess to reshape the surface of the planet on scales that dwarf all previous civilisations brings complexities never before faced. How they shape the nature of climate fears will be discussed below.

So in one sense we are plunging into the unexplored territory of global changes on a vast scale. Yet our knowledge of the possible and likely effects is sufficient to render these changes genuinely threatening. We are not simply awed by our own capacity for altering our environment, but as we understand the complex vectors of human dependency upon various natural systems, we see that the changes we are introducing are compromising the integrity of those systems in increasingly worrying ways, with serious ramifications for human communities that need to eat and drink and be sheltered from the elements. Only those who are ignorant of how different the planet looked during the last glaciation could regard a change of average surface temperatures of three or four degrees as trivial. The more we learn about paleoclimate and previous natural climate changes, the more reason we have to be deeply concerned at our unfolding experiment.

Thus we also fear that which we know, and know to be bad. Precisely because we have previously suffered something as undesirable or harmful, we recoil from the anticipation of repeating the experience. Many of the threats associated with global climate change are as old as human society: crop failure, disease, floods,

[4] See Joseph Tainter, *The Collapse of Complex Societies* (Cambridge: Cambridge University Press, 1988), 1-21 for a much longer list.

displaced people, war and so on. Climate change is a threat multiplier for these all-too-familiar social ills,[5] making them more likely and/or more severe.

Some of the fears associated with the climate crisis are therefore recognisable from other contexts: loss of life, loss of wealth or livelihood, compromise of safety, the anticipation of a more difficult and perhaps shorter life, loss of loved ones. For some, fears crystallize around imagining an increasingly harsh and difficult world for their children or grandchildren. For others, questions of cultural continuity or societal collapse arise.

Communities under the pressure of prolonged scarcity may pull together or fracture into conflict and mistrust. In *A Paradise Built in Hell: The extraordinary communities that arise in disaster*, [6] Rebecca Solnit argues that natural disasters tend to reinforce existing social identities and so draw people together. She cites numerous instances where communities have pulled together after major floods or fires and far from collapsing, have reinvigorated community life.

Yet as George Marshall points out, such community rebound depends on a few factors that are not likely to always be present in the climate crisis.[7] One of the most important is that the stressor needs to be seen as an interruption to normal life, there must be some hope of rebuilding the pre-disaster situation. The trauma of an extreme weather disaster brings people together if they can expect it to not be extreme afterwards. With global warming bringing new 'normal' weather, this can no longer always be assumed. Precipitation failure in some areas does not equate with the familiar experience of a drought to tough out, but may represent a new average rainfall, one capable of supporting only a much smaller community than before. For those in low-lying areas, flooding will only become more and more frequent and severe as sea levels rise. There is no prospect of simply returning to the *status quo ante* when each flood is a harbinger of worse to come. Furthermore, communities typically pull together where major social tensions and conflicts are muted or largely absent. Solnit points out that disasters tend to trigger the reinforcement of existing identities; if that identity is formed in opposition to other

[5] At least in our historical memory if not our recent experience.
[6] Rebecca Solnit, *A Paradise Built in Hell: The Extraordinary Communities that Arise in Disaster* (New York: Penguin Books, 2010).
[7] George Marshall, *Don't Even Think About It: Why Our Brains Are Wired to Ignore Climate Change* (London: Bloomsbury, 2014), 5-10.

members of the same society, then disasters can worsen tensions and trigger conflict. Hurricane Katrina in 2005 was a good example. The existing racial and class tensions came to the fore both within certain areas of New Orleans and in the rest of the country looking on.

Thus, the severity of the climate threats may well be sufficient to compromise the stability of our societies. According to Caitlin E. Werrell, Francesco Femia, and Anne-Marie Slaughter in their 2013 report *The Arab Spring and Climate Change*, one significant trigger for the so-called Arab Spring – a series of widespread protests, revolutions and civil wars across a the Middle East and North Africa that began in early 2011 – was likely the food price spikes in the months leading up to the unrest. These price spikes were higher than any previously recorded in the preceding two decades and resulted in part from extreme weather events in wheat-growing areas consistent with patterns predicted to become more common as the world warms. The intensity of the price spike was further exacerbated by the widespread transfer of arable land to the production of biofuels in the attempt to reduce fossil fuels dependency. The authors are careful to stress that they are not saying that "climate change caused the revolutions" but rather "that the consequences of climate change are stressors that can ignite a volatile mix of underlying causes that erupt into revolution."[8]

The UN's Food and Agriculture Organization (FAO) projects that the world will need to double food production by 2050 due to rising populations and expanding diets, and yet agriculture continues to suffer the effects of multiple ecological stressors (aquifer depletion, invasive species, biodiversity decline, soil loss through erosion, exhaustion and salination, and biofuel displacement. At the same time climate change will bring more severe and frequent heatwaves and disruption to the hydrological cycle, and so on).[9] The potential for further food-related crises and unrest is high.

It is not unreasonable to expect a bumpier future, one more vulnerable to disruptions and discontinuities: economic, political, cultural, even demographic if the

[8] Caitlin E. Werrell, Francesco Femia, and Anne-Marie Slaughter, *The Arab Spring and Climate Change*. Online: https://www.americanprogress.org/issues/security/report/2013/02/28/54579/the-arab-spring-and-climate-change/. Accessed March 2013.
[9] Food and Agriculture Organization of the United Nations, *The State of Food and Agriculture* (Rome: FAO, 2009), vi. Online: http://www.fao.org/docrep/012/i0680e/i0680e.pdf. Accessed October 2010.

darker projections turn out to be accurate. Indeed, Joseph Tainter and Jared Diamond have each catalogued and surveyed a wide variety of historical societies which underwent more or less rapid and irreversible declines in social complexity (usually referred to as "social collapse"), and both draw numerous parallels to contemporary threats.[10] Tainter, in *The Collapse of Complex Societies*, catalogues and analyses every recorded instance of societal collapse. He concludes that such collapses are ultimately inevitable, since every society ends up becoming too complex for its own good, discovering that each societal challenge is answered by further investments in social complexity, yet with declining marginal returns on each such investment until complexity is being generated just to avoid going backwards. Eventually, it becomes more attractive to sufficient numbers of the society's members to undergo a phase shift to a simpler social state. Such shifts have almost never occurred without widespread violence and local demographic decline.

The difference today, Tainter argues, is twofold. First, our society has had a massive energy subsidy in the form of fossil fuels, which enabled us to delay the day of reckoning for some centuries. In the absence of an even more effective replacement, our investments in complexity are already demonstrating strong signs of declining marginal returns. The second difference is that our society is global. While this too has helped to buffer the shocks by spreading the costs across a much wider system, it also means, Tainter argues, that any future collapse will not be merely local.

If the threats are of a sufficient severity to threaten cultural continuity, then for some people there may be a fear of losing part of one's identity. It may be the case that my great-grandchildren will not only have forgotten my name (which is not uncommon), but will live such different lives that my life will be a closed book to them. Or we may fear that the cultural treasures that have helped nurture our sense of self could be rejected or forgotten.

In the face of disastrous or even catastrophic climate consequences, a further fear may be that of losing certain aspirations or cherished dreams. The reasonable

[10] Jospeh A. Tainter, *The Collapse of Complex Societies* (Cambridge: Cambridge University Press, 1988); Jared Diamond. *Collapse: How Societies Choose to Fail or Succeed* (New York: Viking, 2005). See also William R. Catton, Jr. *Overshoot: The Ecological Basis of Revolutionary Change* (Champaign: University of Illinois Press, 1982).

expectation of a more or less comfortable life in a stable nation with gradually rising levels of material prosperity may become something of an historical curiosity, a relic of the post-WWII boom where decades of more or less uninterrupted growth lead to a shifting baseline of expectation about prosperity and affluence. The idea of progress, a recurrent cultural motif in the West from the Enlightenment onwards, is mocked by the unforeseen destructive consequences of the very successes of technological empowerment in multiplying human influences. Thus the threats from the climate crisis extend beyond the potentially severe ecological, economic and political consequences, reaching into our sense of identity and some of our basic assumptions and convictions. These often inarticulate fears run deep and many people will re-evaluate (and downgrade) their threat perception before acknowledging that such convictions may be vulnerable to historical developments.

Conversely, others are more worried about a possible *overreaction* in which we mortally wound the national or global economy through too hastily or unilaterally jettisoning fossil fuels and with them, the source of humanity's staggering growth in population and prosperity over the last six decades. Perhaps our situation can be compared to driving too fast along a narrow and windy road on the side of a cliff. If we oversteer in one direction, we ruin the economy and crash into the cliff face. Understeer and we fall off the cliff of catastrophic climate disruption. Perhaps which danger we notice most keenly might depend on whether we happen to be sitting on the left or right hand side of the car.

Such political differences point to an underlying fear that is extremely salient in considering how fears shape moral reasoning, namely the fear of losing one's identity. Countenancing the real possibility of societal collapse outside of a Hollywood blockbuster can seem unreal. The status quo bias tends towards assuming that things will go on as they are, and so it is often easier to imagine the danger to one's identity if climate science is true than it is to imagine the danger to society.[11] Particularly for people whose identity substantially rests upon a long career in a high carbon field, the fear of having to re-evaluate the value of their contribution to society is palpable in a way that a social collapse is not.

[11] William Samuelson and Richard Zeckhauser, "Status quo bias in decision making" in *Journal of Risk and Uncertainty* 1:1 (March 1988): 7-59.

Similarly, for people who have built a political identity upon a neoliberal opposition to regulation but who sense that climate policy will require an increase in regulation, the fear of losing face or of having to revisit their convictions is far easier to imagine, closer to home and immediate in time. A fear of climate impacts happening somewhere distant at some point in the future is by contrast amorphous.

In a related way, those whose political identity leans heavily upon respect for and trust in authorities can find that a frank appraisal of the failures of effective political leadership in much of the world threatens the sense of security built upon this trust. Or more broadly, apparent cultural apathy towards the issue can serve not just as a social cue lowering the perceived salience of the threat,[12] but itself represents another danger associated with taking climate change seriously, namely, the fear that if we are really in deep trouble, then the widespread apathetic or even hostile response may undermine one's faith in humanity.

Perceived efficacy: Can the threat be addressed?

Once a threat is perceived and taken to be a real possibility of significant harm, then a further pair of factors concerning perceived efficacy will influence the degree and kind of fear experienced: beliefs about one's personal ability to respond to a threat (can I do it?) and beliefs concerning whether the response being considered will actually avert or mitigate the threat (will it work?). Even a potentially grave threat need not produce fear if the agent has a high degree of confidence in her own ability to effect an adequate response. Driving a motor vehicle at any velocity involves the ever-present possibility of grievous bodily injury or death, yet most drivers are sufficiently confident of their ability to notice dangers and manoeuvre the vehicle as to not be in constant anxiety about a suffering a horrendous crash.

Perhaps then, climate threats can be rendered as of little emotional disturbance through one form or another of active problem solving. Yet when applied to contemporary climate threats, beliefs about perceived efficacy quickly become highly complex. First, it is worth noting that since climate change is a cumulative issue, its cause extends well beyond any single individual. It is possible that an individual could be responsible for, say, a catastrophic leak of toxic pollution,

[12] This is called the bystander effect. See Marshall, *Don't Even Think About It*, 26-32.

but no one individual or group bears more than a certain share of responsibly for the climate crisis. Since the cause is the accumulation of millions or billions of small actions, a response which seeks to avoid causing further damage by stopping or changing the problematic behaviour will need to embrace the habits and decisions of millions of people.

As George Marshall explores in *Don't Even Think About It*, when faced with such a daunting scale of change, the efforts of a single individual can easily seem pointless.[13] Some people may be content with "doing my bit", seeking to make lifestyle and personal infrastructure adjustments of a more or less ambitious nature in order to achieve a perception of relative personal efficacy and so dispel climate fears. As a fear management strategy, this may be somewhat effective. Yet as a response to the scale of the threat, it is patently inadequate in the face of very significant cultural, economic, infrastructural and political inertia. That is, such efforts are achievable but likely to be remain ineffective in the absence of much larger cultural, technological, economic and political changes.[14]

Where such personal efforts require some degree of sacrifice (for example, refraining from a consumer purchase or an overseas trip), then in the absence of a widely shared or enforced agreement, my abstention or praiseworthy modification may simply become the occasion for another's further indulgence. This is what is generally referred to as the tragedy of the commons, and a very extensive literature has developed analysing this phenomenon.[15]

Where a particular damaging behaviour needs to cease or be modified on such wide scales, and when the timescales in question are years or decades, then the question quickly becomes both cultural and political. There are widely differing views on the possibility of and strategies for effecting cultural or political change.

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[13] Marshall, *Don't Even Think About It*, 192-97.

[14] There is some evidence that fear appeals can be effective in modifying lifestyle behaviours associated with health outcomes, but only when they are accompanied by a sense of personal agency. See Witte, Kim and Mike Allen. "A meta-analysis of fear appeals: Implications for effective public health campaigns" in *Health Education and Behavior* 27, no. 5 (2000): 591-615. doi: 10.1177/109019810002700506.

[15] Garrett Hardin, "The Tragedy of the Commons" in *Science* 162 (1968): 1243-48. Stephen Gardiner includes a substantial appendix discussing Hardin's seminal article and the ongoing debates around it in *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford: Oxford University Press, 2011), 443-56. See also Haydn Washington and John Cook, *Climate Change Denial: Heads in the Sand* (London: Earthscan, 2011), 117.

Gaining an accurate perception of one's individual efficacy in such situations is very difficult, especially as it quickly becomes obvious that change requires the co-ordinated efforts of many people over timescales of (at least) years and decades. At the very least, the chances of effecting rapid change on cultural and behavioural issues rooted so deeply in mainstream culture are slim.

Perhaps, then, efficacy in addressing the threats could be achieved by a technocratic solution (or series of such solutions) that bypasses the need for political, cultural or behavioural change. Instead, by carefully redesigning or replacing the relevant pieces of fossil-fuelled infrastructure, perhaps the threat can be averted while leaving behavioural patterns and cultural assumptions more or less intact. Perhaps a rapid roll-out of nuclear power and/or wind farms (according to taste), supplemented by electric cars and redesigned buildings could enable the continuation of a consumption-based market economy in which individuals expect ever rising levels of material prosperity (and demand the same from their political representatives). But here too, the activist quickly finds all kinds of impediments – technical, economic, political, cultural – thwarting any easy or rapid solution.

In short, it may be possible to envisage in broad brushstrokes strategies that may address climate threats in a substantial way, but it is difficult to see them as personally, individually, achievable. Between ineffective personal climate piety and unachievable social change, there is no obvious way to find respite from climate fears in a perception of efficacy. Nonetheless, participating in movements for change does lend a sense of agency, even where progress feels slow or non-existent, and as a strategy that combines emotional coping mechanism with contributing gainfully to the crisis, this has much to recommend it and we shall return to it in Chapter Six.

Given the multiple barriers to an accurate felt perception of a threat mentioned above, and the process of coming to a mature perception of perceived efficacy for some people, the process of putting the pieces of the climate science jigsaw puzzle together results in a sudden and dramatic "aha" moment of recognition. Australian ethicist Clive Hamilton wrote of this moment in the following memorable manner:

> At some point—finally—the full truth of what the climate scientists are saying breaks through all of our defences. We can no longer pretend the impacts of warming are too far off

> to worry about, or that the scientists must be exaggerating. We realise that our apathy is rooted in fear or that our hopes for a political upheaval are no more than wishful thinking. We concede that no technological marvel will arrive in time. […] For some, the realisation creeps up as the true meaning of warming leaks into consciousness. For others, the breakthrough is sudden and overwhelming. It's been called the "Oh shit" moment by Mark Hertsgaard, the instant when your whole world shifts and nothing is the same thereafter.[16]

This acute experience is both an awakening to the necessity of ethical deliberation in the face of a complex and demanding new situation as well as also holding the potential to narrow, flatten or short-circuit that deliberation in a number of ways to be considered below. Before we outline the potential temptations such fears offer to ethical thought, let us analyse the distinctive character of climate fears arising from its novel constellation of features.

The character of climate fears: Gardiner and the perfect moral storm

Stephen Gardiner, a philosophical ethicist, has written one of the most insightful attempts at characterising the features of the climate crisis that make it difficult to bring our usual moral resources to bear upon it. His 2011 book, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change*, offers an account of climate ethics that takes seriously the novelty of our situation and the moral and political paralysis into which the threats we face have landed us.[17] He argues that three factors combine to make climate change a unique and particularly insidious challenge: the global scope of both threat and necessary response; the ubiquitous temptation of intergenerational buck passing; and the failure of prevailing theoretical frameworks. Together, these constitute a situation in which political leadership has largely failed and cultural inertia has dominated.

First, climate is a truly *global* challenge.[18] There is a single atmosphere and carbon dioxide molecules do not respect national boundaries. That we now face

[16] Clive Hamilton, *Routledge Environment & Sustainability*, April 2010. Online: http://www.earthscan.co.uk/blog/post/The-e2809cOh-shite2809d-moment-we-all-must-have.aspx. Accessed January 2012. Accessed January 2012.
[17] Stephen Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford: Oxford University Press, 2011).
[18] The first of the three storms that combine to form the "perfect moral storm" of the title is the global storm, which Gardiner explores at length in *A Perfect Moral Storm*, 75-142.

issues like climate change that transcend national agendas is a result of the dramatic technologically driven increases in the consequences of human actions, combined with booming demographic growth in the context of a consumer society soaking up the production of hyper-industrialism. We now have access to energy sources on a scale that gives us the power to reshape the planetary systems in ways previously prevented by the sheer size of the globe. But with increased power comes increased potential for abuse (witting or otherwise). As the barbarians entered the gates of Rome, China was doing just fine. As plague ravaged Eurasia, indigenous Australians continued the tribal existence they had practised for at least forty thousand years. But not until Hiroshima did human agency begin to awaken to its newfound faculty for worldwide catastrophe. Not until the last few decades has the exponential expansion of our fossil fuel exploitation given us a lever with which to move the world. This is a real challenge for multiple reasons. It requires us to consider more neighbours who may be harmed by our actions than we've ever had before, and it requires a level of international cooperation that challenges the primacy of the nation-state on which the modern political order is built. Arguably, the nation-state is already in the process of being displaced by multinational corporations as central pillars of the global political order, but the priorities of corporations are so intimately tied to profit-making, and usually on fairly brief timeframes, that the second feature Gardiner identifies trips them up.

For Gardiner, the second, even more challenging feature of the climate crisis is the ubiquitous temptation to generational buck-passing.[19] That is, due to the structure of anthropogenic warming, it is always in the narrow self-interest of each generation to delay making sacrifices and push the costs onto the next generation.

[19] The whole section from pp. 143-212 focuses on this second storm, but the following quote aptly summarises the main argument: "This [intergenerational] storm arises because of a pronounced temporal dispersion of causes and effects. In the case of climate change, this is caused mainly by the long atmospheric lifetime of the main greenhouse gas, carbon dioxide, and by the fact that some of the basic physical systems influenced by the greenhouse effect (such as the oceans) are subject to profound inertia, so that changes play out over centuries and even millennia. This is important because it suggests that whereas fossil fuel emissions have immediate and tangible benefits for present people, many of the most serious costs are likely to be substantially deferred to future generations. Hence, there arises the possibility of intergenerational buck-passing: the current generation can consume with some level of impunity, passing a major portion of the costs of its behaviour onto to the future. Worse, the problem is iterated: each new generation finds itself in the same position. Moreover, it threatens to arise at various levels of analysis. Intergenerational buck-passing is possible not only for whole populations, but also on a smaller scale, for entities such as social classes, business elites and political administrations." Stephen Gardiner, *A Perfect Moral Storm*, 123.

This is based in two further features of the climate crisis: that the cause is cumulative, worsening over time, and that due to hysteresis, there is a delay between cause and effect. Let us take each in turn.

Each act of energy or resource consumption may be benign or even quite positive in itself. Who is going to criticise a warm room for a sick infant in winter or electric lighting for studying after sundown? The individual decisions and patterns of behaviour are very frequently innocuous enough, even praiseworthy, considered on their own. It is only *cumulatively* that they represent a grave threat. At the end of the day, the relevant figure is the overall concentration of certain gases in the atmosphere, whatever their source. The degree of climate disruption correlates with these rising concentrations to which all nations contribute in large or small ways.[20] This means that no single individual or even nation bears total responsibility and none can single-handedly prevent disaster. The fact that the atmosphere is common to all means co-operation is crucial if we wish to reduce the dangers.[21] We are all guilty, but each powerless on our own. This also means that those who come after us bear the consequences of our accumulation.

The temptation towards intergenerational buck-passing is revealed when the cumulative nature of carbon pollution is added to hysteresis in the climate system, that is an inertia that places a gap between the emission of a carbon dioxide molecule and its full warming potential being realised. Thus, there may be a *delay* of multiple decades between the human behaviours that trigger warming and the full effects being felt. This time lag means that there is a period of anticipation when change is inevitable but not yet fully manifest. One effect of this is to leave more room for denial of the problem while the causes of it accrues. Furthermore, when this delay is combined with the possibility of non-linear changes through rapid positive feedback mechanisms, it is possible that we may find ourselves in a situation where catastrophic outcomes have become more or less inevitable but still lie years or decades away. Compare this to a large-scale nuclear exchange where rockets are in

[20] Other anthropogenic factors do also play a role, notably land use changes resulting in modifications to planetary albedo and the atmospheric concentration of tiny particles called aerosols that result from burning biomass, diesel and coal.

[21] Gardiner points out that even a broad coalition of willing nations would be insufficient if just one or two large countries opted out and decided to continue to increase their emissions. *A Perfect Moral Storm*, 95-98.

the air but have not yet landed. In both cases, widespread devastation is inevitable, but in one case there may be thirty minutes before it is manifest while in the other there may be thirty years. The difference is timeframe is significant as it leaves much more room for imagination; adrenaline gives ways to a constant dread. Here is one of the points where the novelty of timeframes creates ethical contexts for which we have few historical analogies. Not only are they novel, but as Gardiner points out, it is all too easy for each generation to act in bad faith, delaying the costly work of cutting emissions. Since no generation faces the full effects of its own pollution, each is lumped with the preceding generation's warming. There is thus no reciprocity upon which to build intergenerational relationships of trust. At a familial or local community level, personal relationships and parental affection can overcome this problem, but the affection one feels to one's children is generally pretty diluted when it comes to considering their entire generation.

To these first two elements of the perfect moral storm, Gardiner adds a third, the failure of prevailing theoretical frameworks.[22] By this, he means that the usual ethical narratives on which communities have been built are inadequate to cope with the novel features of the climate crisis, leaving us either repeating ethical traditions that fail to get a proper grip on the nature of the challenge or trying to craft new ones. The challenges of such relentlessly intergenerational and global threats are indeed formidable and no ethical tradition, including Christianity, has had to deal with anything precisely like this before (the partial analogy of nuclear proliferation will be discussed below).

Further features of the climate crisis

As illuminating as it is, I think that Gardiner's analysis can be extended. The ethical novelty of the climate crisis consists in the particular group of features. Some issues share some of these features, but no other major challenge brings so many difficult features together in one problem. Together, these have the effect of heightening our sense of fear while leaving us simultaneously feeling helpless and yet tempted to various forms of moral corruption. Let us explore a few more relevant features of this challenge.

[22] Gardiner, *A Perfect Moral Storm*, 213-300.

Our sense of powerlessness is only highlighted by a significant amount of recent and ongoing research into the ways that many earth systems have thresholds beyond which changes may be *abrupt, non-linear and/or irreversible*.[23] Known colloquially as 'tipping points', their potential for locking in further changes means avoiding them becomes highly important. As stresses on a system mount, it may approach certain boundaries beyond which its internal logic may change suddenly and dramatically. These thresholds should not be confused with positive feedbacks, which are features of a system that tend to make changes self-perpetuating. Some tipping points involve positive feedbacks. Some positive feedbacks are gradual or expected to remain linear. Climate scientists have identified a number of potential and actual positive feedback mechanisms that may respond in a non-linear or irreversible fashion beyond certain thresholds. Since knowledge about such thresholds remains incomplete, any line in the sand concerning the acceptability or unacceptability of a certain degree of change reflects attitudes towards risk and constitutes a crucial issue for further ethical reflection.

Present and projected climate changes are not only significantly influenced by our behaviours and choices but we are also increasingly aware of our influence. Many of the threats we face have their origins in behaviours and assumptions that commenced well before we were aware what we were doing. Having started in ignorance, our knowledge has slowly grown (and grown quite rapidly in recent decades) so that now we have no excuse. Today more than ever before, our trajectory into climate chaos is an exercise in *conscious* self-destruction. Previous societies have been aware of their own mortality and have contributed with perhaps some dim level of awareness to their own downfall, but not until the twentieth century did we hold our collective life and death so consciously and decisively in our own hands: first, with the development of nuclear weapons, and then with ecological degradation including climate change. The catastrophic fears of many ancient societies, such as pestilence, war, famine, involved the choices and behaviours of those threatened, but often these contributions were unwitting or with only a dim awareness of the

[23] See for instance the summary of recent scientific work on climate tipping points in Climate Commission Secretariat, *The Critical Decade: Climate Change Science, Risks and Responses* (Canberra, Australia: Climate Commission, 2013), 39-40. Online: http://www.climatecouncil.org.au/critical-decade-risks-responses. Accessed July 2014.

consequences. Our fears are not simply directed towards a hostile foreign nation or impersonal uncontrollable natural threat – though these may be elements of some imagined scary scenarios – instead, we fear ourselves, our apparent willingness to walk into calamity with our eyes open.

Not that most of us were intending to do anything of the sort. Although some scientists and policy-makers have dreamed about deliberately geo-engineering a more optimal world, such schemes have generally been confined to certain pockets of humanity.[24] Therefore, unlike nuclear holocaust, climate change was initially a largely unforeseen and unintended *by-products of success*. It is a side effect of the successful realisation of long-cherished goals: the growth of human population and an increase in standards of living through harnessing an energy subsidy. The emission of carbon dioxide is intimately related to much of our economic activity. These emissions have become a problem due to the extraordinary exponential growth of industrial society, growth enabled by the very burning of fossil fuels that drive the problem. The possibility of nuclear holocaust makes us fear the failure of our diplomacy. Climate change makes us fear the success of our economic activity.[25]

That we are talking about economic activity highlights another feature of this situation. We are not in the realm of personal ethics, but face a series of problems in which the agents responsible are distributed across the globe. Again in contrast to nuclear holocaust, such problems are *collective* in responsibility. They are not the result of a handful of individuals making catastrophic choices under high pressure, but of all of us going about our habitual existence. Although some may bear

[24] Soviet scientists once advocated an engineering scheme in which nuclear devices would be used to melt the Arctic ice cap in order to bring more temperate climate to Siberia. Other ideas mooted have included a grand sea barrier to shift oceanic currents, enormous dams to reclaim land from the ocean on a scale to make the Netherlands envious, and redirecting rivers across hundreds of miles (a project the Chinese are currently implementing to supplement the increasingly stressed water supply in the north). Another Chinese effort aimed to increase stream flow by melting Himalayan glaciers, first with explosives, then far more effectively with sprinkled coal ash. Jonathan Watts, *When A Billion Chinese Jump: How China Will Save Mankind – Or Destroy It* (London: Faber and Faber, 2010), 69-70.

[25] "Generals who blow up bombs know they want to kill people. Chief executives who manage lorries transporting milk from depots to supermarkets generally have no motives more sinister than the wish to make some money for their shareholders. When we use ample water to brush our teeth or fly to Florence to see some Titians, aggression is far from our minds. Yet we are daily reminded that innocent quotidian actions have a cumulative destructive potential greater than an A-bomb. We have been asked to re-conceive of ourselves as unthinking killers." Alain de Botton, "Ecology" in *UN Chronicle* 46.3-4 (2009). Online: https://www.questia.com/magazine/1G1-218591142/ecology. Accessed July 2015.

responsibility for decisions with greater or lesser climate ramifications, no one in the developed world has clean hands. All are guilty of contributing to collective self-harm simply through participating in an economy largely fuelled by carbon emissions and consuming the ever-growing volume of products of that economy.[26]

Not everything about these problems is unprecedented. Certain facets are familiar ground shared by many issues. For example, the negative effects of climate disruption are *unevenly and unjustly distributed*. There are few aspects of social ethics more perennial than the vulnerability of the poor to having the rich and powerful shift the burden of difficulty onto them. Those most able to afford the price of mitigating damage are generally both the ones most responsible for the economic activity that causes the damage and the ones with the greatest capacity to avoid the consequences personally. Although the regional resolution of climate models is not yet excellent, it seems robust to claim that the nations least responsible for emissions, will, on the whole, suffer both earlier and worse harmful effects than the nations who have contributed most to the problem. So while we are collectively hoist with our own petard, neither guilt nor suffering are uniformly felt, and they are poorly correlated. Climate change is thus a form of international injustice.

Questions of justice between the weak and the strong are found not just across borders but spanning generations. Given the very lengthy residence of a given carbon-based molecule in the active carbon cycle,[27] the effects of digging up fossil fuels are basically *permanent* (at least on humanly relevant time scales) and so the costs of rapid change are intergenerational.[28] A large fraction of our carbon emissions will still be affecting the active carbon cycle and shaping the earth's climate for tens of thousands of years. Where the rapid pace of warming leads to extinctions or ecosystem disruption, these changes are also often irreversible. Our fears are not simply for our children, and ourselves, but for as yet unborn descendants. This is another facet of the injustice associated with climate change.

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[26] Dale Jamieson, *Reason in a Dark Time: Why the Struggle Against Climate Change Failed – and What It Means For Our Future* (Oxford: Oxford University Press, 2014), 179-82.
[27] David Archer, *The Long Thaw: How Humans are Changing the Next 100,000 Years of Earth's Climate* (Princeton: Princeton University Press, 2009), 101-136.
[28] Hans Jonas notes that ecological catastrophes are "slow, long-term, cumulative", the product of rational construction and progress, unlike "the insanity of a sudden suicidal atomic holocaust". *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (trans. Hans Jonas with David Herr; Chicago: University of Chicago, 1984 [1979]), ix.

International and intergenerational injustice contributes to the experience of guilt since our actions harm innocent parties. Yet the facelessness of the victims can also numb the imagination and limit empathy.[29] As well as intergenerational injustice, our inability to undo certain kinds of damage can make it more difficult to accept forgiveness.

Those most vulnerable in nearly all these changes are the poor and weak, the young and future generations, and the non-human. The community of our ethical life, those whose interests we consider relevant to our decisions, is often drawn in ways that exclude the very individuals most at risk. That many of the casualties of our actions are *distant* from us in social standing, geography, temporality or genetics makes empathy and common moral purpose more difficult.

Where empathy struggles, so does imagination. Both the proximate causes and many of the initial effects of climate disruption are partially or entirely *invisible* from most members of contemporary urban industrial societies. The gases responsible for most of the climatic changes are present in relatively tiny proportions and are generally undetectable without specialised instruments. The concept of global climate is an abstraction experienced directly by no individual, but only accessible through thousands of measurements that span the globe over decades. Instead, we all only ever experience local weather, which is notoriously variable. Therefore, detecting long term and global trends requires high degrees of trust in scientific measurements and projecting the effects of those trends requires intricate computer models. Hence, the threat is somewhat difficult to grasp without a moderate degree of scientific background and for many people remains fairly amorphous and mysterious.[30]

Further exacerbating the difficulty of getting an imaginative grip on the issues is the fact that the climate threat is largely *impersonal*. There are no terrorists holding the coral reefs to ransom, no clandestine cabal responsible for masterminding the

[29] For an insightful discussion of the role of empathy in responding to the threat of climate change, see Roman Krznaric, "Empathy and Climate Change: Proposals for a Revolution of Human Relationships" in *Future Ethics: Climate Change and the Apocalyptic Imagination* (ed. Stefan Skrimshire; London: Continuum, 2010), 153-72.

[30] Numerous surveys have shown that public understanding of climate science even in highly educated industrialised nations remains patchy at best, for instance, large numbers confuse the causes and features of stratospheric ozone depletion and climate change. Many more believe that the most effective thing they can do about climate change is recycle with greater conscientiousness.

stripping the soils of nutrients and so no straightforward moral narrative of conflict between the righteous and the wicked. The lack of such villains invites vested interests to fill the void with simplified narratives of greedy Americans, nefarious big oil, obstructionist Chinese, or whatever other opponent can be pressed into service.

All these factors diminish in various ways the accessibility of these questions to ethical insight. Adding one more barrier is the very *complex*ity of climate change. The climate science draws upon a wide range of disciplines in the natural sciences: chemistry, physics, meteorology, biology, glaciology, oceanography, geology, hydrology, agronomy, soil science and many more. When economic, political, statistical, technological, historical, psychological, philosophical, ethical, legal, and of course theological aspects are added, as well as all the connections between climate issues and other ecological, social and economic threats that climate change exacerbates, it becomes truly impossible for any individual to acquire a comprehensive understanding of the matter. This makes the issue daunting for the layperson and ripe for the exploitation of confusion through misinformation campaigns by vested economic and ideological interests. Yet, with increasing knowledge of the problem comes increasing anxiety over its apparent intractability. Far from knowledge dispelling fear, those most familiar with the science and politics of the matter are frequently those most deeply distressed by it.

Finally, climate threats require responses at many levels simultaneously: politics (local, national and international), technology and infrastructure, cultural assumptions and norms, behavioural and consumption patterns, economic incentives, attitudes and beliefs and many more. This makes it *strategically multifarious*. In contrast, consider the threat of nuclear proliferation. If one is to take the threat of nuclear annihilation seriously and attempt to reduce that threat, then one is more or less constrained to take an explicitly political route in one's actions. Simply declaring that I will not personally use nuclear weapons is fairly pointless. Of course, the shape of this political engagement may vary, from lobby, protesting, voting and so on. It may even be useful for some individuals to seek to become nuclear scientists in order to develop less destructive options or climate scientists to highlight the danger of nuclear winter. But basically, it will involve attempting to influence others, especially those in particular positions of high influence.

On the other hand, in facing climate change, one's personal actions are also of considerable importance, given the cumulative nature of the problem. Reducing one's personal carbon footprint is a small but important aspect of reducing the threat. Yet it is far from the only aspect, and especially given the timeframes involved, it is quite unlikely to be the most important. Therefore, here is a further temptation, to retreat into personal climate piety, in which "I am doing my bit" and so wash my hands of further responsibility for engagement.[31] The opportunity for ineffective tokenism is high, as is the potential for conflicting strategies of social change to end up endlessly debating which path down the carbon mountain to take: gas, nuclear, renewables, efficiency, conservation, localism, carbon trading, carbon tax and so on.

So climate disruption is global, open to intergenerational buck-passing due to be cumulative and delayed and fails to fit neatly in our existing ethical frameworks. But we have extended Gardiner's three features and added a few more: it is knowingly self-caused, a by-product of habitual success, collective, cumulative, potentially abrupt, non-linear and irreversible, unjustly distributed, largely permanent, distant, invisible, impersonal, highly complex and strategically multifarious. These factors combine to produce a fear shot through with guilt and impotence. We are guilty of unleashing an unparalleled threat that we feel helpless to prevent. This constellation of factors is historically novel and so is the quality of the associated experience of fear. While the threats fall somewhere on a scale that ranges from disastrous to truly catastrophic, fears are often muted, confused, riddled with guilt and impotence, and ineffective in generating anything like the scale of concerted action required to address the threat.

This characterisation of the climate crisis has been trying to articulate why climate fears so effectively distract from and distort the task of ethical deliberation, of working out what we ought to do. The novelties associated with the challenge leaves us more vulnerable than usual to what Gardiner calls moral corruption, leading in dysfunctional and frequently counterproductive patterns of denial, distraction, despair and desperation.

[31] Marshall, *Don't Even Think About It*, 192-97.

Moral corruption

For Gardiner, each of the three storms tempt us in different ways to engage in forms of self-deception that hinder our full awareness of our complicity in the problem. It is undesirable to see ourselves as implicated and so we too readily embrace subversions of our understanding that function to occlude this knowledge from our attention. This is what I am referring to when I speak of our desire to keep the uncomfortable emotional realities of becoming aware of the climate crisis at arm's length. Gardiner calls this moral corruption, that is, the corruption of our ethical deliberation via forms of false consciousness.[32] Moral corruption thus refers to a self-serving and self-deceiving form of pseudo-morality. The possibility of moral corruption is present in all ethical deliberation, but Gardiner argues that it is a problem that is particularly acute for climate ethics, given the particular shape the issue takes and the numerous opportunities to engage in self-interested misunderstanding it affords.

Ultimately, Gardiner thinks that the most insidious and morally corrupting aspect of climate ethics is the intergenerational storm, as the victims are by definition voiceless (not merely marginalised as in the international storm). Indeed, he makes an intriguing case that the usual focus in analyses of the failures of climate policy on the international storm may itself be a form of moral corruption distracting us from reckoning with our complicity in the even more severe intergenerational injustice of climate change. The very complexity and knottiness of the climate crisis may turn out to be all too convenient for the current generation, who keep finding reasons for procrastination.[33]

Flying under the radar: Why climate change is so easily ignored

What Gardiner labels a moral failure, some social psychologists see as a tragic feature of our evolutionary psychology.[34] Certain kinds of threats typically evoke

[32] The concept of moral corruption is present throughout Gardiner's fairly lengthy text, but the most sustained discussion is found in *A Perfect Moral Storm*, 45-48.
[33] A point also made by George Marshall in *Don't Even Think About It*, 91-98.
[34] In a somewhat parallel way to Gardiner's concept of moral corruption, Naomi Klein points to the way that an overreliance upon these psychological theories to account for climate failure turn out to be very convenient for the vested interests that have most to gain (at least in the short term) from that ongoing failure: "This points to the limits of theories like cultural cognition that focus exclusively on individual psychology. The deniers are doing more than protecting their personal worldviews – they are protecting powerful political and economic interests that have gained tremendously from the way

greater or lesser responses. We tend to pay greatest attention to threats that are personal yet external (either to the self or to my community) in origin, immediate in temporality, acute in duration, physical in object, direct in causation and significant in intensity.[35] It helps if the harms can be easily imagined, which is especially the case for those that have been previously experienced. A good example of the kind of threat that straightforwardly grabs our attention would be an enemy or member of a known hostile group attacking a loved one with a weapon.

Our tendency, whether cultural or instinctive, to pay more attention to such threats often serves us well in the context of small agrarian or nomadic communities where the threats are likely to take such forms. Yet in a novel historical situation, where human agency has been extended well beyond the horizon of our vision and even our imagination, immediate concrete threats are neither the only nor necessarily the most ethically significant ones; they are simply the ones that most readily gain our attention. Global ecological changes such as climate change could almost have been designed to be precisely the kind of threat likely to do a fairly poor job at registering on our consciousness: impersonal in nature, yet partially internal in origin (in the sense that the self and its community contribute to causing the problem), delayed in temporality, while chronic in duration, global in effect and so easily considered to be occurring elsewhere, affecting a diverse range of objects in highly complex and somewhat unpredictable ways, indirect, complex and even literally invisible in cause (carbon dioxide is colourless and odourless) and also frequently invisible in effect (since "seeing" a climate averaging one or two degrees warmer than twenty or thirty years ago amidst the daily fluctuations of weather is very difficult). It is difficult to conceive of a problem of deadly seriousness that would confound our threat perception more effectively. Compounding matters are shifting baselines of comparison.[36] As each generation inherits a progressively more impoverished biosphere, the changes they note during their lifetime are compared with a baseline that is itself changing.

[fossil fuel funded front groups] have clouded the climate debate." Naomi Klein, *This Changes Everything: Capitalism vs. the Climate* (London: Penguin, 2014), 44.

[35] Marshall, *Don't Even Think About It*, 46-64; and Jamieson, *Reason in a Dark Time*, 102-03.

[36] Jamieson, *Reason in a Dark Time*, 102.

Since all these features dull the visibility of the threat, in many ways, they also dull the experience of fear for many people. For all kinds of reasons, we find these kinds of matters much easier to ignore as someone else's problem. It is too complex, not immediately relevant, a threat to those socially distant from me in space, time or species. It is indirect and difficult to imagine, historically unprecedented (at least in pace, scale and degree of human influence). Climate change, for instance, is a slow-moving (in human timescales) shift in the average of certain data over spans of space and time far exceeding any single human experience. It is largely invisible, contestable and measurable only by highly complex means not available to the non-expert. The trends are noisy, with ample opportunity for the naïve or disingenuous to cherry-pick subsections to tell alternative narratives.

There is thus a serious disconnect between the severity of the threats as reported by authoritative voices and the personal cognitive perception of threat experienced by most people. This disconnect presses upon us epistemic questions about the nature of scientific knowledge and what kind of trust in experts is warranted. The scope for scepticism is large, since few have the time, means or expertise to double-check the data and theories for themselves, yet the claims being made are not trivial – quite the opposite. If the mainstream scientific understanding is correct, then the stakes are high indeed.

How climate fears threaten ethical thought and action

So we can now put together some of the elements we have discussed to argue that the particular constellation of fears associated with the decline of the biosphere undermines the clarity of ethical vision. The present climate crisis gathers certain features in a historically novel constellation. It is global in extent, critical in severity, highly complex and interdependent in nature, lacks clear solutions, contains points of no return that are difficult to determine in advance but with results that will play out over decades and centuries, and is the product of enormous economic success and of the daily habits and core aspirations of billions of people.

These features mean that climate change is a 'wicked' rather than 'tame' problem.[37] It presents a predicament to which there are better and worse responses, but no solution that will decisively resolve them.[38] The degree of threat that they represent to industrial society as we currently know it is both acute and yet the precise extent of the harm is very difficult to forecast, as are the benefits of various possible responsive strategies. The causes are ongoing and cumulative while the effects may be both geographically and temporally distant from their causes. Thus, there is a significant difference in perception and reality between the immediacy of causation and the remoteness of consequence. The causes are also intricately connected to ingrained habits, prevalent belief systems and settled dispositions of thought and attention, proximate to the core operating procedures of industrial life. This makes change difficult and slow, particularly as many of the suggested responses require mutual transformations of political, economic, social and personal agendas.

Together all these features make for a heady emotional mix, with responses dominated by fear, guilt, betrayal, anger, confusion and helplessness. On the one hand, this fear is always present given the ubiquity of the causes throughout industrial society, and yet on the other it lacks immediacy because the worst consequences may not arrive for decades. It is therefore very difficult to defuse this fear through action as no action is ever sufficient to the scale and scope of the problems, and even knowing what action would be sufficient is almost impossible to determine. Fear leads to a fight or flight reaction, and fighting is ineffective in calming the worry, but flight is equally useless due to the global scope.[39] There is no 'outside' to which one can retreat. Thus it is a fear not easily addressed or displaced.

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[37] Horst Rittel and Melvin Webber, "Dilemmas in a General Theory of Planning" in *Policy Sciences* 4 (1973): 155-69. Kelly Levin, Benjamin Cashore, Steven Bernstein and Graeme Auld argue that climate change is actually a "super wicked" problem: "Overcoming the tragedy of super wicked problems: constraining our future selves to ameliorate global climate change" in *Policy Sciences* 45 (2012): 123-52. A super wicked problem combines the features of a wicked problem with four additional features: "time is running out; those who cause the problem also seek to provide a solution; the central authority needed to address it is weak or non-existent; and, partly as a result, policy responses discount the future irrationally." There is thus significant overlap with what Stephen Gardiner calls "the intergenerational storm": *A Perfect Moral Storm*, 143-212.

[38] John Michael Greer, *The Long Descent: A User's Guide to the End of the Industrial Age* (Gabriola Island, BC: New Society Publishers, 2008), 22-24.

[39] There are various kinds of escapism that are also a mode of flight from distressing problems.

Since the climate crisis is intimately related to the daily habits of us all, the fear is shot through with guilt. It is our patterns of consumption and our tacit agreement to the systems of production and distribution through our participation in the economic life of society that are largely responsible to the mess we are in. This guilt, like the fear, is both ubiquitous yet diffuse. It is inescapable in that all members of industrial society consume more than is sustainable when multiplied by billions. Yet my personal contribution is so tiny as to be insignificant. We are not very good at cumulative problems, particularly when each contribution seems morally neutral considered in itself, or even commendable. Who can find fault with most of the actions that collectively degrade the living systems of the planet? Somewhat paradoxically, the combined effect of innumerable good deeds adds up to a grave fault. This fault, since it applies to all, also applies to none.

The complexity and apparent intractability of the various crises makes merely understanding exhausting, let alone formulating possible reactions. Unless one is willing to invest significant time and mental energy into studying the interlocking threats, then they will remain opaque and subject to either oversimplification or confusion.

Apathy as socially organised denial: a Norwegian case study

There is thus a pervasive cultural dynamic in which strong scientific claims regarding the existence and urgency of dangerous anthropogenic climate change are not matched by a commensurate level of cultural and political engagement. A collective failure to attend to the climate crisis in a manner that leads into responsible action requires explanation. Relative public apathy in the face of seriously disturbing information can not be explained simply through an information deficit model; efforts at education in climate science alone have not, by and large, resulted in transformative behavioural and policy responses.

Wanting to explore this puzzling disconnect, Kari Marie Norgaard spent six months conducting qualitative research into the lives, attitudes and behaviours of a Norwegian town during 2000-2001, a winter with insufficient snow for skiing in a

town where the sport was at the heart of its economic and cultural life.[40] What Norgaard discovered was that "despite the fact that people were clearly aware of global warming as a phenomenon, everyday life in Bygdaby went on as though it did not exist."[41] In a town where most citizens were educated, politically engaged and prided themselves on being ecologically responsible, nonetheless, there was a pervasive pattern of "socially organised denial", running from political elites and the highly profitable oil industry through to the deeply troubling emotions raised for individuals as the realities of climate change conflict with the dominant cultural narratives through which they constructed their identity.[42] Shared unspoken feelings of fear, helplessness and guilt arising from the threatened loss of meaning and order fostered a collective resistance to paying attention. Although this may have initially manifest as a form of apathy, Norgaard's research revealed that this apathy was a mask of repressed despair and deep grief. This apathy thus wasn't a "lack of caring, but [was] more like its Greek root, *apatheia*, which means the refusal or inability to experience pain."[43]

Such apathy is an expression of the fear of psychic pain, and is expressed in mutually reinforcing cultural norms of silence and non-response. This denial of reality serves as a way of keeping such fears at bay through socially organised norms and patterns of attention, emotion and conversation: "denial refers to the maintenance of social worlds in which an undesirable situation (event, condition, phenomenon) is unrecognized, ignored or made to seem normal."[44] Without the protection of these norms, the cognitive dissonance between the residents' self-perception as 'good people' and their suppressed knowledge of disturbing climate realities (and their national complicity in these as a major oil exporter) threatened to become unmanageable.

[40] Kari Marie Norgaard, *Living in Denial: Climate Change, Emotions, and Everyday Life* (Cambridge, MA.: MIT Press, 2011).
[41] Norgaard, *Living in Denial*, xvi. 'Bygdaby' is a pseudonym for the town.
[42] Norgaard, *Living in Denial*, 9-12.
[43] Norgaard, *Living in Denial*, 59.
[44] Norgaard, *Living in Denial*, 60.

Distraction: A failure of attention attenuating ethical focus

Since climate fears are diffuse, complex (and so readily misunderstood), temporally delayed and chronic, impersonal and unprecedented (and so difficult to imagine), they are all too easily assumed to be someone else's problem. Unless we really pay attention, it is relatively straightforward to relegate "environmental issues" to its own niche along with other special interests in the body politic.[45]

Psychologists speak of people having a "finite pool of worry".[46] It is simply not possible to pay attention to every situation, person or event that could represent some kind of threat. Priorities need to be decided and some issues will fall by the wayside. It is in many ways unsurprising therefore that the fortunes of public attention on climate threats rises and falls inversely with economic concerns. When recession strikes, the finite pool of worry is dominated by immediate concerns that are seen as more concrete and closer to home.

Climate fears fall into a pattern noted by Stanley Cohen in *States of Denial*: "Without being told what to think about (or what not to think about), and without being punished for 'knowing' the wrong things, societies arrive at unwritten agreements about what can be publicly remembered and acknowledged."[47] Ignorance becomes a path chosen to defend one's own moral integrity. Just like with human rights abuses, we choose to look away lest in looking we discover our ethical responsibility for a horrendous situation. There are certain issues that are either too complex or where our position is too morally compromised for our culture to make it normal to face up to the full parameters of our situation. The temptation to minimise the scale of the threat, our moral culpability or the difficulties in effecting appropriate change is strong.

Faced with such obstacles, it can be easier to retreat into numb apathy, to refuse the challenge. Even where the gravity of the situation is intellectually acknowledged, it can seem a safer option emotionally to remain disengaged. This is

[45] For this reason I generally avoid the term "environment" and its cognates, since it implies something that is merely background and which can safely remain in the corner of our eye, preferring instead the term "ecology" and its cognates, with their connotations of the earth being the dwelling place, *oikos*, that we share with the rest of the community of life, a concept that is a major focus of Chapter Six.
[46] Marshall, *Don't Even Think About It*, 77-80.
[47] Stanley Cohen, *States of Denial: Knowing About Atrocities and Suffering* (Cambridge: Polity, 2001), 10-11.

tacit denial, yet without the polemics of open denial, nor the perceived need to justify inaction. Apathy never really grapples with climate disruption as an ethical issue, preferring to endlessly defer the difficult task of deliberation. Indeed a number of intriguing qualitative studies that have conducted in depth interviews with people who would likely be classified as 'apathetic' about climate in quantitative surveys discovered that they actually had quite strong emotions not too far under the surface and that their apparent apathy was a mask for unresolved grief, anger or fear.[48]

But since the cognitive dissonance costs of apathy are relatively high, it is perhaps more common amongst those who are at least minimally conscientious to witness various tactics of distraction.[49] To handle the feelings of guilt, it is common to employ either a scapegoat or a ritual sacrifice. In the former, the guilt becomes concrete in a figure of power who is obstructing change, or a company without a conscience, or a class whose greed or fertility is excessive. The complexity of the crisis provides ample opportunities to identify and blame symbolic villains. The Chinese can blame the Americans for having the highest historic carbon dioxide emissions. The Americans can blame the Chinese for having the highest contemporary national emissions. Everyone can then agree to blame the Africans for having too many babies. Blame shifting turns the focus away from the agent and their capacity for responsible action and onto an other who is made to bear the burden of guilt and of attention. Addressing the problem has conveniently become someone else's problem.[50]

Alternatively, token gestures of resistance can become imbued with almost magical efficacy, rituals to atone for one's share in guilt. The obligations to the living systems of the earth become not merely instantiated but also exhausted by a finite list of commands: thou shalt recycle; thou shalt replace incandescent light bulbs; thou shalt not take long showers; thou shalt think positive thoughts about cyclists while overtaking them; and so on. Whether out of genuine guilt, or merely shame, these small changes to personal lifestyle are part of a pattern of distraction. By

[48] Renee Aron Lertzman, "The Myth of Apathy: Psychoanalytic explorations of environmental subjectivity" in *Engaging with Climate Change: Psychoanalytic and Interdisciplinary Perspectives* (ed. Sally Weintrobe; New York: Routledge, 2013), 117-33. See also Norgaard, *Living in Denial*, 58-62.
[49] Clive Hamilton, *Requiem for a Species: Why We Resist the Truth about Climate Change* (Sydney: Allen & Unwin, 2010), 123-26.
[50] Hamilton, *Requiem for a Species*, 126-28.

acknowledging the problems but responding with only selective focus, guilt (or shame) can be kept at bay and one's climate obligations discharged. For those whose conscience is still sensitive, indulgences can be purchased through carbon offset schemes.[51]

Where green consumerism is founded on the belief that informed consumer choice is adequate to the task of building a resilient and sustainable society, then the climate credentials of a given product are all so much greenwash, no matter their veracity, washing not just the corporation but the consumer clean of further responsibilities.[52] Yet so-called green consumerism challenges neither personal levels of consumption nor the perpetuation of an ever-growing system of resource exploitation. As Oscar Wilde noted, "the worst slave-owners were those who were kind to their slaves, and so prevented the horror of the system being realised by those who suffered from it, and understood by those who contemplated it."[53] If an action that falls a long way short of robust climate responsibility while maintaining a system of rapacious consumption is treated as praiseworthy, then the system becomes inoculated against further criticism since it has internalised the critique and produced its response.

Distraction is a form of motivated (though not necessarily always entirely conscious) ignoring of the full emotional and ethical impact of our situation, a turning of a blind eye, effectively becoming a form of passive functional denial. Crucial in enabling this pattern is the difficulty associated with actually paying close attention to the true nature and size of the threat.

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[51] This is not the place for a detailed assessment of voluntary carbon offset schemes, which, when well-managed may have some positive part to play in a healthy ethics of transition, but it is clear that as currently marketed and used, very frequently these schemes function as a salve for consciences pricked by its ongoing participation in ecologically-destructive behaviours, enabling the continuation of the activity without being hampered by guilt. See Michael Northcott, *A Moral Climate: The Ethics of Global Warming* (London: Darton, Longman and Todd, 2007), 134-43.

[52] The definitive treatment of the topic of "greenwashing", in which corporate or governmental organisations seek to nurture a public perception of ecological responsibility without the substance of the same is found in Guy Pearse, *Greenwash: Big Brands and Carbon Scams* (Melbourne: Black Inc, 2012).

[53] From Oscar Wilde, "The Soul of Man Under Socialism" (1891), quoted in Slavoj Žižek, *Living in the End Times* (London: Verso, 2011), 118.

Denial: a failure of perception corrupting moral vision

One tactic for handling otherwise unavoidable fears and guilt is re-evaluating their credibility. Is our perception of the current situation accurate? Might our alarm be unnecessary, or exaggerated? Are these climatic changes really happening? Are they really caused by us or merely part of a natural cycle? Will they turn out to be nearly as threatening as they are sometimes made out to be? Yet can we, in fact, do anything about it? Denial of the existence, causation, extent or likely trajectories of the perils hides the threat from view in order to avoid the apprehension associated with it, including the uneasy conscience one may have over personal contributions to the situation. The complexity of the issues contributes to a pattern of denial by providing multiple entry points for scepticism or suspicion. As mentioned above, for those who seek this escape route, there are plenty of articulate comforters who can reassure us that things are not nearly as bad as we thought. Articulate and passionate they may be, but on the whole credible they are not. To take this path means intellectual dishonesty, such as entertaining hugely elaborate conspiracy theories or highly selective attention to avoid the cognitive dissonance that comes from being in disagreement with almost all the most qualified experts. But the attractiveness of denial lies in resolving the tension of a fear that otherwise threatens to never depart. It almost goes without saying that such logical compromise arrests ethical discourse. If there is no problem, no thought is required.

On the other hand, alarmism that claims no human action can prevent or even mitigate immediate and utter calamity also fails to be an accurate perception of the present situation. Just as those in denial sometimes use falsely extrapolate from isolated examples (either cherry-picking data to convince themselves there is no problem, or pointing to alleged mistakes that bring down the entire scientific enterprise), so exaggerated alarmism also oversimplifies the case. If all action is entirely futile, then it is unnecessary, as is ethical thought. Alarmism can also manifest itself in seeking out the shock value of ever more frightful statistics, ostensibly to motivate action, but secretly one wants to hear bad news because it is more titillating.

The adversarial model of journalism (disguised under a desire for “balanced reporting”) and the degeneration of news media into entertainment encourage this

double disconnect from reality as the most extreme predictions are juxtaposed with the most contrarian figures and both get more than their fair share of oxygen.[54]

Stanley Cohen, in his highly influential study of the social mediation of denial, *States of Denial*, lays out an extensive taxonomy of different elementary forms of denial along six axes, each having two or three alternatives, resulting in two hundred and sixteen possible combinations.[55]

First, there is the *psychological status* of the one in denial: conscious or unconscious, distinguishing deliberate lies from lies told to oneself.

Second, there are three possibilities regarding the *content* of precisely what is being denied: literal, interpretive or implicatory. Literal denial is a rejection of the facts of what happened, such as when temperature records are questioned. Interpretive denial is when the events are not in question, but their meaning is, as can be seen when extreme weather is interpreted as merely a natural chance occurrence, rather than an illustration of trends in the climate data. Implicatory denial does not question either facts or interpretation, but minimises or eschews the "psychological, political or moral implications that conventionally follow".[56] As discussed above, many forms of distraction are versions of implicatory denial, since the full emotional or moral weight of the situation is being obscured, even if the bare facts are not explicitly doubted. The suffering of the global poor from climate-related disasters is a good example here; the existence of, say, a drought may not be in question, nor even its link to anthropogenic climate trends, but the suffering of those starving as a result fails to carry the expected moral weight when it comes to considering whether to continue profiting from coal mining.

Third, the extent of denial can be personal, official or cultural. With the exception of the Republican Party in the United States, there are no major political

[54] Ironically, given the pace at which ecological knowledge is growing, what an untrained journalist may consider extreme could actually be a more or less mainstream position amongst experts. The depiction of the United Nations Intergovernmental Panel on Climate Change as the alarmist fringe of climate change science in some sections of the media is a case in point. Amongst climate scientists, the IPCC is frequently considered to be quite conservative in its estimates. See William R. Freudenburg and Violetta Muselli, "Global warming estimates, media expectations, and the asymmetry of scientific challenge" in *Global Environmental Change* 20.3 (2010): 483-91. doi:10.1016/j.gloenvcha.2010.04.003.

[55] Stanley Cohen, *States of Denial: Knowing About Atrocities and Suffering* (Cambridge: Polity, 2001), 3-20.

[56] Cohen, *States of Denial*, 8.

parties that openly embrace a position of official denial of climate science, yet there are many political jurisdictions and institutions in which a strong culture of denial holds sway, as well as certain key individuals personally espousing denial.

Fourth, the timeframe can be either historical events or a contemporary reality. When it comes to climate, given the history of organised misinformation (mentioned below) about climate science, part of the issue is the denial of this historical legacy, but the majority of the phenomenon falls into Cohen's category of contemporary denial, turning a blind eye to what is happening around us.

Fifth, the agent of denial may be one of the victims, one of the perpetrators, or from amongst any bystanders. The former can be seen at times in those who may be not considered as 'environmentally privileged'. For instance, some relatively poor inhabitants of low-lying island micro-nations may deny that the increasing frequency of flooding represents an existential threat to their way of life, perhaps embracing a belief in a divine *deus ex machina* solution or minimising the seriousness of the trend. The fear of ecological catastrophe may be particularly overwhelming for those who perceive themselves to have extremely limited agency, having gained the impression (quite rightly) that the international community is not willing to prioritise their enhanced vulnerability sufficiently to prevent the inundation of their society. Amongst majority Christian populations in Pacific Islander contexts, this has sometimes manifested as a belief that God's promise to Noah in Genesis 9.11 guarantees the impossibility of catastrophic inundation.[57]

Sixth, the suffering being denied may have occurred in a space that is proximate or distant. When it comes to climate as a global issue, there are elements of both.

Dan Kahan's influential analysis of denial concludes that it is a particularly acute form of identity protective cognition, in which a strong bias is exhibited in the

[57] Tony Weir, Liz Dovey and Dan Orcherton, "Social and cultural issues raised by climate change in Pacific Island countries: An overview" in *Regional Environmental Change* 17:4 (April 2017): 1017-28. Online: https://doi.org/10.1007/s10113-016-1012-5. See also Colette Mortreux and Jon Barnett "Climate change, migration and adaptation in Funafuti, Tuvalu" in *Global Environmental Change* 19:1 (February 2009): 105-112. Online: https://doi.org/10.1016/j.gloenvcha.2008.09.006. Such quietist interpretations of the Noah narrative are increasingly being challenged by Pacific theologians employing alternative readings that keep open the possibility of genuine danger and the necessity of creative and faithful responses to rising waters. For instance, see Tafue Lusama, *The Punishing of the Innocent: The Problem of Global Warming with Special Reference to Tuvalu* (Unpublished Masters thesis; Taiwan: Tainan Theological Seminary, 2003).

reception of new information to interpret it in ways that are compatible with upholding one's current identity and self-perception.[58] If this is true, then it further highlights the significance of nurturing forms of identity that are less prone to exhibit such overactive defence mechanisms against threatening information and so is an affirmation of the import of this thesis in seeking to articulate such an identity.

In understanding the phenomenon of denial, it is also important not to neglect the amply documented, long-running, well-funded, coordinated and highly effective campaign across multiple continents of deliberate misinformation about climate science pursued by corporate interests with trillions of dollars of potential profit at stake.[59]

Both the great potential for confusion and mistaken understanding of a complex field and the strong impulse towards what Gardiner calls moral corruption combine to produce a context ripe for the deliberate manipulation of misinformation in service of vested interests. Indeed, some oil companies such as Exxon (now ExxonMobil) have apparently been involved in such efforts for fifty years or more.

In parallel and at times in collaboration with the similar campaign run by major tobacco companies, these corporations have funded efforts to muddy the waters of public opinion, undermining political will to regulate carbon pollution or limit fossil fuel expansion and thus holding open the window of profitable exploitation of a dangerous product. The means of effecting confusion have been explored by numerous scholars, with Donald Brown summarising the various strategies as: reckless disregard for the truth; focusing on some unknowns while ignoring the science that is not in question; specious claims of 'bad' science; placing the burden of proof on the wrong party; hiding from the public the real parties in interest behind scientific claims through the multiplication of front groups;

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[58] See especially the extensive research of Dan Kahan on this topic, such as "Ideology, Motivated Reasoning, and Cognitive Reflection: An Experimental Study" in *Judgment and Decision Making* 8 (2013): 407-24.

[59] Naomi Oreskes and Eric Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (London: Bloomsbury, 2010); James Hoggan, *Climate Cover-Up: The Crusade to Deny Global Warming* (Vancouver: Greystone Books, 2009); Clive Hamilton, *Scorcher: The Dirty Politics of Climate Change* (Black Inc, 2007); George Monbiot, *Heat: How We Can Stop the Planet Burning* (London: Penguin, 2006), 20-42; Washington and Cook, *Climate Change Denial*, 43-88; Jamieson, *Reason in a Dark Time*, 81-92; James Hansen, *Storms of My Grandchildren: The Truth About the Coming Climate Catastrophe and Our Last Chance to Save Humanity* (London: Bloomsbury, 2009), 28-58; Klein, *This Changes Everything*, 31-63.

manufacturing bogus science; public relations campaigns; and cyber bullying scientists and journalists.[60]

The success of this campaign can be seen in the large gap between public opinion of the level of scientific agreement on climate (under half those surveyed believe that there is scientific agreement on climate change in a number of countries where organised denial has been especially focused) and the actual level of scientific consensus (which is over 97%, as noted in the Introduction). As with the tobacco industry, the goal is not to 'win' the debate, but merely to create the appearance of ongoing legitimate scientific debate on matters where in practice it no longer exists due a confluence of evidence having convinced a large consensus of expert opinion.

The effect of this confusion is to exacerbate the opportunities for moral corruption by providing a veneer of respectability to outright denial as a coping mechanism for avoiding having to face the consequences of our climate crisis. But more subtly than this, it also provides (at times subconscious) cover for self-justifications from those employing less direct coping strategies, allowing us to hide behind convenient excuses through the shift in risk perception associated with the perception of uncertainty.

Of course, there are still plenty of genuine uncertainties in climate science, but given that these nearly all involve significant downside risks (i.e. that climate change could turn out to be significantly worse than the median scientific expectation), such uncertainty ought to be no excuse for inaction.

Despair: a failure of imagination short-circuiting ethical deliberation

In thinking about climate change the proper role of the imagination in ethical thought is sidelined by despair. Despair is not simply the belief that a particular issue might not have an adequate solution, but more importantly involves a loss of belief in the meaningfulness of my actions, even where they may not solve the problem at hand. It thus goes one step further then desperation in accepting the possibility of a genuine predicament without solution, but mistakenly assumes the ultimacy of this situation and so treats the failure of efficacy as a destruction of meaning. Trapped in an

[60] Donald A. Brown, *Climate Change Ethics: Navigating the Perfect Moral Storm* (London: Routledge, 2013) 225-30.

unbreakable cycle of fear and guilt, this doom-laden nihilism abandons the ethical quest. This is a failure of imagination because it misses the possibility of meaningful action that nonetheless does not solve the crisis. Thus, despair takes seriously the complexity and 'wickedness' of the problems, and is overwhelmed by impotence. Yet by narrowing the goal of action to the survival of industrial society, the feeling of incapacity becomes paralysing. With a goal this narrow, unless an action is likely to be decisive and effectual, it is not worth commencing. Since no such action can be imagined, meaningful action ceases. Even where a lesser goal of harm minimisation is accepted, despair can blind the imagination to seeing possible routes towards a partial achievement. Despair is unwilling to attempt steps in the right direction that are patently inadequate to the scale of the task. It can be manifest as an uncompromising purity or perfectionism that sacrifices the achievable good for the impossible best. Despair has lost sight of the way that faith embarks on a journey without being able to see the end, trusting that sometimes the value of actions is not simply the solving of determinate problems, but the opening of new possibilities. Human acts have echoes and consequences beyond the horizon of imagination; despair forgets that the path of history rarely follows the tracks laid out in advance by human planning. Sometimes, a faithful act is a mustard seed in the soil of providence.

Desperation: a failure of judgement flattening the ethical landscape

The density and technical detail involved in understanding anthropogenic climate change (not to mention the competing claims of various proposed responsive policies) frustrates the ability of judgement to even articulate likely outcomes, let alone evaluate their respective merits. The task seems overwhelming and the decisions impossible. Political, social, personal, economic, ecological and spiritual systems are all involved in a bewildering array of interconnections. Simply trying to untangle the historical threads that have led us to the current situation can long occupy the attention. Moreover, the historical novelty of the rate and scale of human effects on the biosphere make judgements very difficult as partial analogies can only provide partial insight.

In contrast, desperation is so driven by fear and guilt, so aware of the scale and imminence of the coming catastrophe, that any solution is better than none. Desperation therefore accepts whatever solutions first appear at hand, however improbable or costly. Thus, it does attempt to take the immediacy of the issue seriously. Yet ultimately it fails to acknowledge the complexity of the problems it seeks to address, and so becomes merely reactive, losing sight of the likely true costs of its proposals.

Desperation encompasses both 'bright green' technological optimism (frequently coupled with free market libertarianism) and a neo-survivalist movement that is currently booming in the US.[61] Both these approaches may be include valid ways of increasing the resilience of a global society reaching its ecological (including climatic) limits, but when they become a silver bullet, they are a sign of desperation. Both are short-sighted. Bright green technological optimism assumes that the best solution to a world where our agency has been massively increased by technology beyond our ability to foresee its effects is to *increase* the reach of our agency through yet more technology. Similarly, it assumes that in a world where a market predicated on endless growth has depleted basic resources and degraded ecosystems that the answer is more growth. Survivalism, insofar as it reinforces its basic premise of everyone for him or herself can be self-fulfilling because it distracts attention from the social bonds of trust and communication that lie at the heart of any true social resilience.

Either way, the nuances of the ethical landscape are flattened into a simplified response, whose cogency and efficiency must be kept from questioning lest its function in displacing fretful worry become diluted. I shall return to discuss this in more detail in Chapter Four.

Conclusion

Even at the best of times, there are many shortcuts to thoughtful ethical action. The particular shape of today's climate crisis increases the motivation to take one of these

[61] Neo-survivalism is a renewal and mainstreaming of survivalist principles of self-reliance and preparedness, based on an expectation or fear of a sudden breakdown in social order and basic services. For some survivalists this is a regrettable likelihood, for others of a more anarcho-primitivist bent, it is a positive desire. For an example of the latter, see *Endgame* by Derrick Jensen (New York: Seven Stories Press, 2008).

paths into distraction, denial, despair or desperation. While they initially look attractive, they represent a failure of attention, perception, imagination and judgement. Neither distraction and denial honestly come to grips with the scale of threats and so suppress the fear that could potentially be illuminating. Neither despair nor desperation are able to handle the effects that taking the threat seriously has on one's capacity to think ethically. The present context presents a novel challenge for Christian theological ethics, which must find ways of re-sourcing its deliberation so that fear can be put in its proper place.

The next chapter will seek to survey further relevant literature with a focus on the ways that fear has been used in key historical texts associated with the rise of the modern environmental movement. These partial analogues to climate fears will illustrate a common pattern of employing fear to effect an emancipatory shock in the reader. This will be contrasted with an alternative way of locating climate fears present in some recent texts that takes a more therapeutic approach.

Chapter Two

Scared of a Silent Spring

Rachel Carson's Use of Fear as Ecological Motivator

Climate change is far from the first threat to society or life on Earth as we know it. Although this thesis holds that climate change (and the character of the fear it provokes) is historically novel, and that this novelty is of ethical significance, this is not to say that such fears are without analogue.

This chapter will survey some landmark texts in the development of the modern environmental movement, drawing connections between the ways they use fear in service of their persuasive ends. With particular focus on Rachel Carson's *Silent Spring*, we shall see how these texts all rely upon an implicit theory of fear as being capable of delivering an emancipatory shock.

The various shortcomings of this use of fear have subsequently led to a critical backlash against these texts such that fear-based appeals for ecological concern are often now seen as suspect, due to being either counterproductively paralysing or illegitimately manipulative.

In the final section of the chapter I will turn to a number of contemporary thinkers who argue for a re-appraisal and rehabilitation of the role of fear, not in order to deliver an emancipatory shock, but as a natural and healthy emotional response to trauma that can be integrated into a therapeutic and ultimately empowering grieving process.

Carson's life and context

Rachel Carson (1907-1964) was an aquatic biologist working for the US Bureau of Fisheries.[1] While marine biologists study oceanic life, aquatic biologists focus on freshwater ecosystems. When first hired in 1936, Carson was only the second woman employed full time by that organisation in a professional position. Spending much of her life in a precarious financial position due to the need to support unwell family

[1] The following account is based upon the biography by Linda Lear, *Rachel Carson* (New York: Henry Holt, 1997) as well as Mark Hamilton Lytle, *The Gentle Subversive: Rachel Carson, Silent Spring, and the Rise of the Environmental Movement* (Oxford: Oxford University Press, 2007).

members, Carson supplemented her work at the Bureau of Fisheries with writing newspaper articles. These were very warmly received and she was contacted by a publisher urging her to expand her writings into a book.

Her first book *Under the Sea Wind*, published in 1941, shifted her focus from aquatic to marine biology and received excellent critical reception, but sold poorly. She continued to be promoted at the Department of Fisheries, now renamed the Fish and Wildlife Service, and gained increasing autonomy over her writing projects and fieldwork, but the administrative duties delayed her next book until ten years later, when she published a sequel *The Sea Around Us* (1951) and then in 1955 rounded out a trilogy with *The Edge of the Sea*. The second volume, *The Sea Around Us* won numerous awards, remained on the *New York Times* bestseller list for 86 weeks and has been translated into at least 28 languages. A life history of the oceans, the book was also turned into a successful documentary, which won the 1953 Academy Award for Best Documentary Feature, though Carson hated it, discovering too late that the contract she signed did not give her authority over the script, which she felt betrayed and oversimplified her work. *The Sea Around Us* also resulted in Carson receiving two honorary doctorates. Her financial situation had prevented her from pursuing a PhD earlier in life but the success of *The Sea Around Us* enabled Carson to quit the Fish and Wildlife Service in order to focus on writing full time.

By the late 1950s, Carson was becoming more involved in the conservation movement and from 1957 again found herself caring for a second needy relative, resulting in her moving to Silver Spring, Maryland. Around this time, she also started to pay much closer attention to federal government moves towards widespread aerial spraying of synthetic pesticides to eradicate fire ants. Pesticide use and abuse soon became the focus of Carson's research and writing for the following seven years until her death in 1964.

Silent Spring (1962)

Silent Spring, Carson's best known book, and the primary text for this chapter, was published on 27th September 1962 by Houghton Mifflin and a year later in the UK by Hamish Hamilton.[2] An exposé of the disastrous consequences of pesticide use on

[2] Rachel Carson, *Silent Spring* (London: Penguin, 2000 [1962]).

humans and ecosystems, the title comes from the text's particular focus on the unexpected harms done to birds and the imaginative possibility of a spring without birdsong, an image with which the book opens.

The main culprit was Dichloro/Diphenyl/Trichloroethane or DDT, a colourless, tasteless and almost odourless substance first synthesized in 1874 and whose insecticidal effects were discovered in 1939, being used during the later years of World War II in the control of disease vectors for malaria and typhus, before becoming widely applied as a pesticide in agricultural contexts after the war.

From the late 1940s, increasing scientific attention was directed to its deleterious effects on human and ecological health. Carson's main concern in *Silent Spring* was documenting and dramatizing the ecological consequences of DDT's toxicity to a wide variety of organisms, especially marine and aquatic life.[3] DDT also has a metabolite (DDE) that causes eggshell thinning, particularly affecting birds of prey due to bioaccumulation.[4] For this reason, Carson thought that DDT and other pesticides ought to be renamed biocides, since their effects are rarely limited merely to their target pest species. Carson also documented evidence that DDT seems to act as a human endocrine disruptor, reducing male and female fertility, increasing the risk of preterm births and infant neurological abnormalities, as well as being a neurotoxin and probable carcinogen.[5]

In *Silent Spring* Carson synthesized and popularised large volumes of specialist research, painting a grim picture of both the then currently observed effects of DDT and of the bleak future if its use continued to grow. In vivid and poetic language, Carson explored both the science and ethics of industrial society's increasing reliance on synthetic pesticides, exploring not just the ecological and human costs of its overuse but painting a unflattering picture of the exploitative and domineering mindset that disregarded ecological harms in the pursuit of the maximisation of agricultural profits.

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[3] Carson, *Silent Spring*, 50-60.
[4] Carson, *Silent Spring*, 100-21.
[5] Carson, *Silent Spring*, 168-77. These are the claims for which Carson provides evidence in her book. I am leaving aside the scientific question regarding subsequent further research into these claims and further nuances that have been added to the dominant understanding of DDT's complex deleterious effects.

As "an epoch-making book"[6] it helped to launch the modern environmental movement, as opposed to the older, more conservative conservationist movement. The text combined Carson's scientific knowledge with emotionally laden rhetoric seeking to engage the public with an alarming warning of the likely consequences of continuing on a particular trajectory of pesticide use. The book electrified, galvanised and polarised the US public, drawing the now familiar battle lines between scientifically-based concerns about the unforeseen consequences of highly profitable novel technologies and the corporate interests that benefit from them. Many of the tropes and techniques used have become more or less commonplace in subsequent environmental messaging. She powerfully articulated the centrality of the precautionary principle as the appropriate stance to guide policy regarding the application of new technologies with complex and unknown consequences. This has become something of an axiom in much subsequent ecological ethics. The text is thus highly relevant to subsequent debates about the use and abuse of fear in ecological discourse. So as a window into these matters, let us take an extended look at the framing of the book through its title and opening imagery.

Analysis of a Fable: *Silent Spring*, Chapter I

The first chapter is titled "A Fable for Tomorrow". It is the briefest chapter, only two pages long, and was written last, intended as a gentle introduction for what may have appeared to be an intimidating and dense book. It begins:

> There was once a town in the heart of America where all life seemed to live in harmony with its surroundings. The town lay in the midst of a checkerboard of prosperous farms, with fields of grain and hillsides of orchards where, in spring, white clouds of bloom drifted above the green fields. In autumn, oak and maple and birch set up a blaze of colour that flamed and flickered across a backdrop of pines. Then foxes barked in the hills and deer silently crossed the fields, half hidden in the mists of the autumn mornings.[7]

The setting of anyplace USA draws upon the pastoral imagery commonplace in nature writing at the time. Harmony between human and natural systems is indicated

[6] Michael Northcott, *The Environment and Christian Ethics* (Cambridge: CUP, 1996), 12.
[7] Carson, *Silent Spring*, 21.

by the town's placements amidst both agricultural and wild systems of fields and foxes. This heart of America is an idealised picture of human interaction with beautiful, albeit tamed, nature. The farms are prosperous, the trees and flowers visually appealing. Life is shaped by seasonal cycles and the silence of the deer, the first anticipation of the book's theme, is still innocent and apt.

The fable continues with more poetic descriptions of wildflowers, trout-filled streams, plentiful berries and "countless birds": "The countryside was, in fact, famous for the abundance and variety of its bird life". The fame of this copious beauty, coherence and productivity drew a "flood of migrants", visitors who arrived to enjoy both the visual and recreational possibilities of the landscape. Again, the relation of humans to their environment is one of appreciation, wonder, delight and sustenance: "So it had been from the days many years ago when the first settlers raised their houses, sank their well, and built their barns."

It is worth noting at this point, that the idealised narrative has thus painted out both the genocide of the indigenous population and the destruction of the forests and woodland that covered much of the "heartland" of the USA prior to European settlement, and from which the houses were raised and the barns built. The picture of harmonious dependence and delight is thus already based on a mythologising and naturalising of destructive processes that had already fundamentally altered the landscape. This is also to say nothing of the megafaunal extinctions associated with the first arrival of *homo sapiens* some fourteen or so thousand years earlier. The landscape described by Carson has already had much of its abundant biodiversity stripped away. But going even further back, during the last glacial maximum 26,500 years ago it is not inconceivable that the quiet little township would have been either under an icesheet, flooded by glacial runoff, or have been part of a vast boreal forest or taiga. By placing the township in a fable, Carson hides the long history of radical ecological change, including anthropogenic shifts to considerably lower biodiversity in the more recent past. But the structure of her idyll requires the stability and goodness of the more or less contemporary situation to be foregrounded in order to draw out the drama of the contrast that is coming.

The third paragraph introduces this dark turn:

> Then a strange blight crept over the area and everything began to change. Some evil spell had settled on the community: mysterious

> maladies swept the flocks of chickens; the cattle and sheep sickened and died. Everywhere was a shadow of death. The farmers spoke of much illness among their families. In the town the doctors had become more and more puzzled by new kinds of sickness appearing among their patients. There had been several sudden and unexplained deaths, not only among adults but even among children, who would be stricken suddenly while at play and die within a few hours.[8]

The ominous note here is achieved by two elements. First is the disruption and physical damage being caused to humans and livestock. Nothing is spared: neither poultry nor ruminants, neither adults nor children. But the darker aspect is not simply that the shadow of death has fallen over the town, but that this is "strange". The maladies are "mysterious", the kinds of sickness are "new". Even the doctors, repositories and symbols of scientific knowledge, are puzzled. The significance of novelty in the experience of fear will be explored in Chapter Three, but suffice to note at this point that the novelty is associated with a loss of control. Since the blight is unfamiliar, its true meaning remains hidden. Without a diagnosis, its prognosis is unsure, treatment impossible. Without understanding, the ability even to anticipate loss is compromised. The blight might strike anywhere, including oneself. There are thus three fears evoked by this paragraph: the fear of death, the fear of loss and the fear of loss of control.

But Carson's next paragraphs, crucially, add a fourth and fifth note to this symphony of anxiety.

> There was a strange stillness. The birds, for example – where had they gone? Many people spoke of them, puzzled and disturbed. The feeding stations in the backyards were deserted. The few birds seen anywhere were moribund; they trembled violently and could not fly. It was a spring without voices. On the morning that had once throbbed with the dawn chorus of robins, catbirds, doves, jays, wrens, and scores of other bird voices there was now no sound; only silence lay over the fields and woods and marsh.
>
> On the farms the hens brooded, but no chicks hatched. The farmers complained that they were unable to raise any pigs – the litters were small and the young survived only a few days. The apple trees were coming into bloom but no bees droned among the blossoms, so there was no pollination and there would be no fruit.

[8] Carson, *Silent Spring*, 21.

> The roadsides, once so attractive, were now lined with browned and withered vegetation as though swept by fire. These too, were silent, deserted by all living things. Even the streams were now lifeless. Anglers no longer visited them, for all the fish had died.
>
> In the gutters under the eaves and between the shingles of the roofs, a white granular powder still showed a few patches; some weeks before it had fallen like snow upon the roofs and the lawns, the fields and streams.
>
> No witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves.[9]

The initial innocent silence of the deer crossing the fields now finds a far more ominous and dread-filled silence. This is not the peaceful, even useful, quietness of a fleet-footed creature escaping potential predators, but the complete absence of living beings capable of making noise. Spring, the time of new birth, abundant, yet fragile, is the time when the noisiness of renewal offers the assurance of the continuation of the cycle of life. Yet the loss of birdsong intimates something quite distinct from the grief of losing a loved one, or the pain of one's agricultural livelihood being undermined through livestock losses. The absence of birds metonymically represents a threat to the entire web of life, a sudden and unexpected foregrounding of what had, until now, been treated almost by definition as background: the environment. What had been seen as the backdrop for human activity - the cycles of all life within which a primarily human drama is played out – has itself become vulnerable to catastrophic change, a player in the drama.

This shift of the natural world from the more or less unchanging context against which human history occurs to itself having a history represents a momentous change of assumptions. It is not simply that it might be subject to change, that much was already widely grasped through developments in natural history for more than a century. Instead, what was still relatively new here is the idea that this natural history might occur on humanly relevant timescales, that major ecological change could occur not only at a glacial, geological pace, but within a single human lifetime.

Indeed not simply change, but collapse. More than some dead birds, missing bees or lifeless streams, the silence represents the unravelling of the web of life, the

[9] Carson, *Silent Spring*, 22.

breakdown of ecological order in a cascade of effects. Much of the rest of the book is devoted to exploring various aspects of these effects and their knock-on consequences on birdlife, river life, aquifers, livestock, human health and the development of pesticide resistance amongst repeatedly exposed pest populations. Throughout, the connections between systems is highlighted and Carson helps to build consciousness not simply of biology, but of ecology, how organisms interact in a system that includes not just other living things, but also the very chemistry of the air, water and soil.

Thus in addition to the fear of death, fear of loss, fear of loss of control in the face of the unknown, Carson has added a fourth element: dread at the possibility of ecological collapse. Dread is greater than fear, since the object is not merely this or that specific loss, but the loss of a whole order of beings and with it the loss of a world of meaning at the same time. A world without birds, a world in which spring is silent, would be a different planet.

But there is a fifth and final element too. In Carson's imagined town, Spring is not just silent, but silenced. Here is horror. Horror is more than just fear for self or for one's family or livelihood. It is more than just the puzzling newness of the unexplained, or even dread at the vulnerability of systems vital for life as we know it. Horror comes from the slowly growing realisation that *humanity is responsible*. Horror results from the realisation that human actions are not only harming ourselves, but infecting entire ecosystems, spilling over from the human into the more than human world, disrupting not just human agricultural economies, but the ecology of all living things.

Yet this realisation is not obvious. It is experienced as a slow awakening. Here, the image of white granular powder that had fallen like snow plays a double function. On the one hand, it mimics the natural occurrence of snowfall and so masks its true meaning behind the innocuousness, almost invisibility, of familiarity. But on the other hand, that it fell a few weeks ago renders its causal consequences difficult to see. The blight experienced by the town is mysterious because the delay between cause and effect obscures the cause, delaying in turn the realisation that humanity is culpable.

At this point, it is salient to compare this ordinary-looking powder with other forms of human ecological destruction that were far more obvious and deliberate. First, after the Second World War, the development of chainsaws and bulldozers lead to a huge jump in the rate of land clearance.[10] There is evidence of human deforestation running well back into the Palaeolithic, but the scale and pace of change made available through the mechanisation of tree felling enabled the acceleration of one of the most visible forms of human alteration of the landscape. The clearance of deciduous broadleaf forests in Europe and North America was largely complete by the time Carson was born in the early twentieth century. This process had occurred over centuries, largely through human physical labour with axes and saws. But chainsaws and bulldozers, together with the development of far more efficient forms of shipping, rapidly opened up the exploitation of tropical forests on a hitherto unimaginable scale.

While awareness of this ecological destructiveness in distant lands was only nascent in Carson's society, the key differences with the ecological disruption explored in *Silent Spring* concern the intentionality, visibility, reversibility and containability of the two threats.

First, when a forest is cut down for timber and/or agricultural land, the massive ecological change this represents is the explicit goal of human activity. But when synthetic pesticides are sprayed, the target is economically damaging insects, with the ecological harms catalogued by Carson being unforeseen and unintended side effects. There is thus a very different picture of human agency at work, with implications for how these changes are imaginatively and emotionally received.[11]

Second, the felling of a forest is immediately obvious and visually shocking. There is no question about its cause or the extent of the change, even if the consequences for biodiversity, extinction of endemic species, loss of soil fertility and so on are only gradually manifest and understood. Pesticides that only slowly reduce

[10] John McNeill, *Something New under the Sun: An Environmental History of the Twentieth Century* (London: Penguin, 2000), 229-36.

[11] For another contemporary example of massive deliberate change to a landscape, compare the various plans around this time for the use of nuclear explosions in geoengineering. The USSR contemplated using nuclear devices to melt the Arctic and so increase agricultural production in Siberia. Senior military figures in China were agitating for the use of hundreds of nuclear weapons to blast a passage through the Himalayas to gain access to the Indian monsoon. See Jonathan Watts, *When a Billion Chinese Jump: How China Will Save Mankind – Or Destroy It* (London: Faber and Faber, 2010), 72.

the fecundity, flourishing or feasibility of more subtle elements of the landscape push many of the key changes out of obvious sight. Carson's choice of silence as the image of change is telling on this score: the most readily perceptible difference is initially auditory rather than visual.

Third, a forest once felled can grow back. Indeed, in much of the north-east of the USA, where Carson spent most of her life, vegetative cover was slowly recovering from earlier clearances. The return of biodiversity is slower, and obviously extinct species are irreversibly lost, but most local deforestation does not seem permanent in its effects. In contrast, one of the most disturbing parts of *Silent Spring* for the public at the time was learning about the persistence and bioaccumulation of toxic pesticides like DDT and their gradual distribution throughout the global ecosystem. Indeed, DDT sprayed back in the 1940s and 50s and 60s is still almost universally detected in blood samples of US citizens fifty years later, as well as being widely present in many foodstuffs even today, though concentrations have been declining since its widespread use was banned.[12] When DDT does break down, its breakdown products and metabolites, DDE and DDD, are also persistent over many decades and also have problematic consequences for humans and ecosystems. Thus, while not entirely irreversible, the use of persistent toxic compounds like DDT creates ecological effects not easily remediated over long timescales.

Fourth, DDT and other persistent organic pesticides can be transported far beyond the original site of application, and so cause effects in distant locales. Indeed, the process of "global distillation" results in higher concentrations of such substances in high latitudes and altitudes through patterns of evaporation and deposition, since vapours will precipitate out of cooler air in cold regions, where processes of breakdown are also slower. In addition, bioaccumulation up the food chain results in apex predators, who often have very large ranges, transporting substances into new regions. Together, these effects result in indigenous populations in the Arctic having some of the highest concentrations of pesticides in their blood, despite negligible use

[12] Eskenazi B, Chevrier J, Rosas LG, Anderson HA, Bornman MS, Bouwman H, Chen A, Cohn BA, de Jager C, Henshel DS, Leipzig F, Leipzig JS, Lorenz EC, Snedeker SM, Stapleton D (2009). "The Pine River statement: Human health consequences of DDT use" in *Environmental Health Perspectives* 117 (9): 1359–67. doi:10.1289/ehp.11748

of DDT in the area.[13] As a result, some residents of Arctic regions even became wary of breastfeeding, due to the dangers of passing on dangerous concentrations to their infants.[14] Conversely, most people think the effects of deforestation are largely confined to the area cleared and its immediate surroundings. This is, of course, not entirely true. Habitat fragmentation can have long term consequences well beyond the cleared area. Where evapotranspiration is a major factor in precipitation patterns, loss of biomass can affect distribution patterns and water flow beyond the cleared area. Soil erosion can also have consequences extended far downstream of deforested areas. Furthermore, deforestation results in significant carbon being released from soils and biomass with global consequences. But such effects of deforestation were largely unknown to the general population when Carson was writing, meaning that the imaginative contrast was operative in her original audience.

Thus, ecological changes due to deforestation were seen as deliberate, obvious, largely reversible and locally contained. In contrast Carson presented ecological changes from pesticides like DDT as largely unintentional, somewhat opaque, persistent and unable to be contained to the area that was sprayed.

To her initial readers, Carson's images and argument thus evoked the horror of realisation that technological advances (in this case in organic chemistry) meant that even well-intentioned human actions could have unforeseen consequences far exceeding the possibility of remediation and with transnational implications. To the dread of ecological vulnerability she added the horror of human responsibility.

Like Nietzsche's madman, who proclaimed not simply the death of God, but that we are God's murderers,[15] like the prophet Nathan, who revealed not simply the injustice of oppressive abuse of wealth and power, but that King David was supremely involved in precisely such crimes,[16] so Carson introduced not simply the

[13] Arctic Monitoring and Assessment Program (AMAP), *Assessment 2009: Human Health in the Arctic* (Oslo: AMAP, 2009), 4. Online at http://www.amap.no/documents/doc/amap-assessment-2009-human-health-in-the-arctic/98. Accessed November 2015.

[14] The Arctic Monitoring and Assessment Program has consistently recommended that the known benefits of breastfeeding outweigh the lesser quantified effects of contaminants, though these recommendations have been needed in the face of widespread public concerns about the issue. AMAP, *Assessment 2009: Human Health in the Arctic*, 19.

[15] Friedrich Nietzsche, *The Gay Science* (trans. Walter Kaufmann; New York: Vintage, 1974 [1887]), §125.

[16] See 2 Samuel 11-12, especially 12.7: "You are the man!" (NRSV)

concept of human ecological destructiveness but our tendency to hide from ourselves the growing and awesome power of our collective agency.

> No witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves.[17]

Carson thus revealed a new power, which in the complexity of its knock-on effects can remain hidden from view, and in the persistence and proliferation of its blight can thwart our capacity to control or limit. Thus this new power also introduced a new powerlessness. Human agency now stretched so far over the horizon that our actions exceeded our ability to understand, predict, prevent or remediate their consequences.[18]

The opening chapter ends with an acknowledgement that the fable does not describe any known town, but that it is compilation of observed effects in many locations: "I know of no community that has experienced all the misfortunes I describe. Yet every one of these disasters has actually happened somewhere, and many real communities have already suffered a substantial number of them. A grim spectre has crept upon us unnoticed, and this imagined tragedy may easily become a stark reality we all shall know."

Silent Spring thus builds a web of fears through a variety of literary and psychological strategies, seeking to evoke a rising tide of horror and even panic before an unfolding catastrophe that it is at once unstoppable and yet entirely our fault.

For instance, in her twelfth chapter, which details DDT's impacts on humans, she begins by referring to a "tide of chemicals born of the Industrial Age", an image that turns human technologies (industrial chemicals) into a force of nature (a tide).[19] The very next sentences contrast the fear previous generations had of various infectious diseases with the level of control now exercised in their eradication or management, but the language she uses makes this shift seem like it happened literally overnight: "Only yesterday mankind lived in fear […]. Today we are

[17] Carson, *Silent Spring*, 22.
[18] These themes had already been explored a few years earlier by Hannah Arendt in *The Human Condition* (2nd ed.; Chicago: University of Chicago Press, 1958) and we shall return to them in Chapter Three.
[19] Carson, *Silent Spring*, 168.

concerned with a different kind of hazard".[20] The appeal to threatening novelty is thus heightened by dramatically foreshortening the time periods involved, emphasising the lack of time to have gained knowledge, let alone wisdom, concerning these new powers humanity has gained through industrial chemistry.

The following paragraph presents novel anthropogenic chemicals as a shadowy and amorphous ubiquitous presence, rendering the familiar world strange and disrupting settled realities in ways as yet unknown. The sense of horror is intensified through a reference to the potential lag between a fateful act that seals humanity's doom and the "twenty or more years" that may pass before it is fully manifest. The sense of being potentially already guilty of the self-destruction of the human race without yet knowing it evokes a fear capable of disrupting identities built upon a modernist confidence in human ingenuity and the beneficence of technological 'progress'. Carson emphasises the mismatch between the rapidly accelerating horizon of human agency and the much slower growth of human wisdom. We are increasingly capable of acts whose consequences will be broader and longer than our capacity to foresee. Prudent foresight is rendered myopic and thus inadequate to the task of regulating the excesses of technologically-enhanced action.

After *Silent Spring*

The legacy of *Silent Spring* was long and complex.

DDT use was increasingly regulated in the United States and around the world, culminating in the Stockholm Convention on Persistent Organic Pollutants signed in 2001 and coming into force in 2004, which outlawed its use for all but disease vector control in the 179 nations who are current parties to the Convention (of which the US is not one). DDT was not the only pesticide Carson discussed in *Silent Spring*, and the book's conceptual and emotional legacy continues to shape contemporary public debates over pesticides. This can be seen in efforts to reduce the impact of neonicitinoids on pollinators, in rising concern over the public health impacts of C8 surfactants (used in Teflon and Gore-Tex, as well as scores of other

[20] Carson, *Silent Spring*, 168.

consumer products) and in debates over the pollution of the political sphere by corporate agendas with regards to Monsanto's best-selling product glyphosate.

The older, more conservative conservation movement of which Carson had been a part was soon joined by a newer movement that was more hostile to industry, more militant in its tactics, more systemic in its analysis of the causes of ecological damage, and more ambitious in its political and cultural goals. *Silent Spring* is often credited with helping launch the modern environmental movement,[21] and the rapid regulative successes of the movement was both the cause and consequence of explosive growth in its popular appeal. Carson's book was a best seller; DDT was the prime cause of the formation of the Environmental Defence Fund, a group of scientists and lawyers working for better regulation of dangerous chemicals. The Environmental Protection Authority (EPA) was created by President Nixon in 1970, in response to widening public concern about environmental degradation. The inaugural Earth Day in 1970 saw 20 million people involved, out of a US population of 203 million at the time. Within twelve years of its publication, the environmental movement had seen all of the major pieces of US environmental legislation put in place: the National Environmental Policy Act (1970), Clean Air Act (1972), Marine Mammal Protection Act (1972), Marine Protection Act (1972), Endangered Species Act (1973) and the Safe Drinking Water Act (1974). All of these were passed under Republican President Nixon, who personally had no great commitment to ecological care, but who was fearful of the political clout of the movement. Indeed, these successes turned out to be a high water mark of the movement, as they spurred an increasingly organised and effective corporate backlash that sought to water down their provisions, prevent further legislation and demonise the environmental movement in ways now highly familiar.

The US Department of Agriculture (USDA) opposed Carson's findings from the outset. Public relations agents of agribusinesses called her hysterical and tried to portray her as an unreliable female prone to exaggeration, producing a number of scientists (who happened to work for agribusiness interests) willing to downplay the seriousness of DDT toxicity. Caron's character, credentials and the imagined consequences of her argument were all attacked in hyperbolic terms. Chemical

[21] A detailed case is made for this common claim in Lytle, *The Gentle Subversive*.

companies threatened to sue the publishers, but every chapter had been reviewed by experts in the field to ensure scrupulous accuracy and none of these came to fruition.[22]

The backlash against Carson has been revived in recent years, with industry-funded think tanks and aggressively pro-market writers accusing her of being a greater mass murderer than Hitler.[23] The argument is that she is allegedly responsible for twenty million or more malarial deaths as a result of getting DDT banned, thus removing a critical weapon in the fight against the deadly and debilitating disease. But Carson never called for DDT to be banned entirely and indeed DDT was never banned for vector control. In Carson's day, already mosquitoes were developing resistance to DDT (as she pointed out in *Silent Spring*),[24] and so the regulation and elimination of agricultural use has been the best thing for DDT's use in disease control, since it has slowed the rate of resistance being developed. Indeed Carson noted how important DDT was in disease vector management, but added that even if it had no ecological or public health effects, it still ought not be overused due to resistance. Furthermore, DDT is no silver bullet against malaria; it is neither sufficient nor necessary in mosquito control, though in some contexts, it is judged of some ongoing use as one strand in an anti-malarial strategy.

Despite the baseless nature of the accusation, there is far more at stake than simply DDT use, malaria control or the legacy of Carson herself. Due to *Silent Spring*'s role in launching the US environmental movement, the battle over DDT has become enmeshed within a much larger culture war. It is thus a symbolic issue for continued debates over the freedom of capital to pursue profit by externalising its costs onto public and ecosystem health, as well as a parallel to and proxy for disputes over climate science, being another realm within which the contest between science-based regulations face off against business interests promoting unrestrained use of dangerous but highly profitable technologies.

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[22] For an account of the backlash against Carson's work both at the time of publication and its more recent revival (as I outline in the following paragraph), see Naomi Oreskes and Eric M. Conway *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (London: Bloomsbury, 2010), 216-39.

[23] Numerous examples of such claims are collated by Oreskes and Conway *Merchants of Doubt*, 222-23.

[24] Carson, *Silent Spring*, 214-28.

Finally, Carson's work represented an early voice forcefully rejecting the dominant paradigm of scientifically-informed technologically-adventurous industrialism and thus implicitly calling into question the broader cultural confidence in the inevitability of human progress so influential in post-war US culture.[25] *Silent Spring* is thus amongst the earliest flashpoints in an increasing cultural rift within the natural sciences. On one side of the divide is an analytic, reductive and instrumentalist science that functions as (and often explicitly sees itself as) the servant of technology and industry. On the other, and partially inspired by Carson's work, is a synthetic, systems science that seeks to understand complexity and the myriad interacting consequences of human actions.[26] This latter kind of science is no longer merely the servant of technological advancement, but reveals its dark side, crystallising and arming public opposition to technologically-driven damage to ecological and public goods. It is typified in the discipline of ecology, a word and concept that Carson did a great deal to popularise.

The Population Bomb (1968)

A few years later, two more key texts came out that were to have a lasting impact on the tone, focus and momentum of the environmental movement.

In 1968 US biologist Paul Ehrlich with his wife Anne Ehrlich (whose work was initially uncredited) published *The Population Bomb*, which linked the growing awareness of an array of ecological problems to the explosive demographic growth of the mid-twentieth century.[27] In the spirit of Thomas Malthus, whose 1798 *Essay on the Principle of Population* had noted the way that demographic growth was outstripping agricultural production, the Ehrlichs' main focus was the nexus of food security and rising population.[28] They argued that a Malthusian catastrophe of mass starvation would imminently and inevitably unfold over the course of the 1970s and

[25] Lytle, *The Gentle* Subversive, 166-67.
[26] Such a division is intended to be primarily heuristic. In practice, many scientific endeavours encompass elements of both. In some circumstances, ecologists, who typify the latter kind of systems science, are employed by corporations to justify their extractive projects. I am personally aware of a number of tragic situations where individuals who went into environmental science out of a deep concern for the natural world have ended up being paid to write reports that will provide the legal and political cover for degrading it.
[27] Paul R. Ehrlich (and Anne Ehrlich), *The Population Bomb* (London: Richard Clay, 1971 [1968]).
[28] Thomas Robert Malthus, *An Essay on the Principle of Population* (ed. Geoffrey Gilbert; Oxford: Oxford University Press, 1999 [1826, 1798]).

80s in which "hundreds of millions" would die of hunger, triggering concomitant social upheavals of various kinds.

The only amelioration possible was through an immediate, global and sustained effort to simultaneously limit population growth while temporarily "stretching" the world's food production.[29] Advocacy for voluntary control of fertility was necessary but insufficient, requiring the addition of other, more directive, initiatives of population control, such as both negative and positive tax and financial incentives, increasing access to contraception, abortion and voluntary sterilisation, and the creation of a government agency tasked with implementing and propagandising such an agenda.[30] The hypothetical and controversial option of adding "temporary sterilants" to the water supply or staple foods is ruled out due to both "the criminal inadequacy of biomedical research in this area" and the strength of popular backlash it would no doubt generate.[31] Existing food production also required more vigorous protection against the pressures of environmental degradation through more robust regulative measures.[32]

Let us leave to one side any analysis and critique of the reactionary politics and often xenophobic resonance frequently associated with many calls for population control and instead focus upon the persuasive strategies being employed and the function played by fear within them.

Throughout the text, the sense of impending doom is strong, with frequent laments over missed opportunities. Simultaneously, there is a somewhat naïve assumption of the simplicity of increasing the rationality of demographic decisions through government propaganda making direct appeals to ethical and pragmatic goals.

While there is acknowledgement of the added pressures on food security from other ecological issues such as pesticides,[33] these take a back seat to

[29] Ehrlich and Ehrlich, *The Population Bomb,* 55-64.
[30] Ehrlich and Ehrlich, *The Population Bomb*, 84-94.
[31] Ehrlich and Ehrlich, *The Population Bomb*, 83-84.
[32] Ehrlich and Ehrlich, *The Population Bomb*, 95-97.
[33] The Ehrlichs originally wanted to give their text the more general and descriptive title *Population, Resources and Environment*, yet this was modified at the urging of the publisher for marketing reasons. See Paul R. Ehrlich and Anne H. Ehrlich, "The Population Bomb Revisited" in *Electronic Journal of Sustainable Development* 1(3) (2009): 73-97.

demographics, which remains the dominant interpretive key and consideration of supreme importance, subjecting other issues to its demands.

As in *Silent Spring*, the book makes strong rhetorical use of fear, through frequent appeals to the consequences of failing to depart urgently from current societal trajectories. Yet these are crude and blunt in comparison to the literary sophistication of Carson's writing. Carson's long experience as a populariser of ecological science and her profound personal sense of wonder and delight are apparent throughout her text. In contrast, the Erhlichs almost always view the world beyond humanity instrumentally, with ecological care being almost entirely a form of enlightened self-preservation.

Celia Deane-Drummond contends that Carson thought that "wondrous appreciation of the natural world" was the basis of ecological concern, rather than the instrumentalist approach of the influential biologist E. O. Wilson (and both the Ehrlichs and the Club of Rome), which is more focused on preserving human goods than on the intrinsic worth of the world beyond humanity.[34] For Carson, the more wonder, the less taste for destruction. This perspective comes through most strongly in her posthumously published essay *The Sense of Wonder*,[35] rather than on *Silent Spring*, though Carson did say that she never wanted "the ugly facts" to dominate *Silent Spring*: "the beauty of the living world I was trying to save has always been uppermost in my mind."[36] Indeed, this was one reason for including a somewhat fuller biographical introduction to Carson; it demonstrates that she was no attention-seeking peddler of doom, but that her fear-based message was ultimately rooted in a long history of nature writing that had flowed from a deep and abiding sense of wonder and joy.

Let us now turn to two more examples of iconic texts in the rise of the modern environmental movement that arguably did not do as good a job of staying grounded in a fundamental sense of wonder.

[34] Celia Deane-Drummond, *Eco-theology* (London: Darton, Longman and Todd, 2008), 14.
[35] Rachel Carson, *A Sense of Wonder* (New York: Harper and Row, 1965).
[36] Lytle, *The Gentle Subversive*, 133.

Limits to Growth (1972)

A couple of years after *The Population Bomb*, a global think tank comprised of high level figures in government, business and science called the Club of Rome commissioned a publication bearing the title *Limits to Growth*.[37] Co-authored by Donella H. Meadows, Dennis L. Meadows, Jørgen Randers and William W. Behrens III, this 1972 volume broke new ground in its use of computer modelling to project a number of possible scenarios of exponentially growing human systems within a finite resource base. For a couple of these scenarios, the model runs resulted in societal overshoot and collapse due to a combination of rising pollution and resource depletion, justifying the book's title: growth of human systems has a limit on a finite planet.

These projections were to be taken as predictions "only in the most limited sense of the word", functioning more as schematic types displaying the interaction of different factors under a variety of assumptions rather than specific empirically-based calculations of the precise date of impending collapse for industrial society. Nevertheless, somewhat inevitably perhaps, both activists and critics overlooked such distinctions and at a popular level the book was taken by many critics to be disproven by the decades without collapse since its publication.

The authors have defended their text, publishing some updates and clarifications and pointing out that even in the original version, societal collapse was not projected on the 'standard run' scenario within mere decades, but only at a point around the middle of the twenty-first century.[38] Furthermore, Graham Turner has published a number of reviews in which he demonstrates that the figures used in the book for the 'standard run' scenario have held up pretty well (within margins of error) against actual historical data for most of the factors included in the computations.[39]

Its shocking conclusions, employment of what were then cutting-edge computer models and readily graspable message combined to leave a lasting legacy

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[37] Donella H. Meadows, Dennis L. Meadows, Jørgen Randers and William W. Behrens III, *The Limits to Growth* (New York: Universe Books, 1972).
[38] Donella H. Meadows, Dennis L. Meadows, and Jørgen Randers, *Limits to Growth: The 30-Year Update* (White River Junction: Chelsea Green Publishing, 2004).
[39] Graham Turner, "A Comparison of the Limits to Growth with Thirty Years of Reality" in *Socio-Economics and the Environment in Discussion*, CSIRO Working Paper Series (2008), 52. doi: 10.1016/j.gloenvcha.2008.05.001.

on debates around economic growth. It served as the inspiration for a number of groups focused on steady state (zero growth) economics as well as inspiring others to consider preparations for imminent societal breakdown.

Like *Silent Spring* and *The Population Bomb*, *Limits to Growth* makes dramatic appeals to the impending collapse of human society as the basis for an urgent appeal to comprehensive social change in order to avert catastrophic and otherwise inevitable consequences. Unlike those texts, its analysis is explicitly multi-focal, seeking to understand the ways that various potentially limiting factors interact with one another. Conceptually, then, it is a more sophisticated analysis, but rhetorically, its persuasive strategies share much in common with the other texts. Let us consider this shared pattern and the ethical assumptions it implies.

Emancipatory Shock

Silent Spring and the texts that followed in its wake rely on belief in both the efficacy and ethical defensibility of emancipatory shock. Through painting verbal images of looming catastrophe (with differing degrees of literary and conceptual sophistication), all three books aim to shock their readers into reconsidering their present assumptions, priorities and behaviours. The model of persuasion relies on appealing to the readers' innate recoil from a hypothetical projected future, such that they are willing to subject their current perspective to re-evaluation. The threatened future has to be made to appear worse than the difficult prospect of having to change one's mind and life. There is thus an implicit appeal to calculative reason, which is asked to weigh the relative risks and benefits of performing a difficult task today to stave off an even more undesirable future. The temptation then becomes to sacrifice scientific objectivity to the rhetorical needs of persuasion; the more scary and absolute the catastrophe, the less space to argue over the comparatively trivial sacrifices asked for today in order to avert it.

Furthermore, this tactic assumes that the barrier to change is primarily apathy. Fear is the jolt that can get a lethargic, ignorant or disconnected populace to rouse itself into the exercise of its political power to effect societal change. Still, this may inadvertently overlook the actual powerlessness of many people in the face of entrenched political and economic forces. For many people, it is not ignorance of or

genuine apathy about the existence of deep problems (such as climate change) that prevents a vigorous response, but a perception of relative impotence. To such an audience, a fear-based message designed to maximise shock value leaves its hearers overwhelmed and profoundly disempowered.[40]

In the historical context of these three books, each coming out amidst the height of the Cold War (and for the latter two, during its hot proxy correlate in Vietnam), their respective ecological catastrophes had to compete for airtime against the threat of nuclear annihilation. Over time, as it became clear that the implications of each of these threats was serious but not immediately world-ending – with society still standing, crops still growing despite pesticides, starvation serious but not resulting in hundreds of millions of extra deaths, resource depletion worsening but somewhat ameliorated by innovation and shifting market forces – the absolute power of these fear appeals to trump more proximate and short-term political and social agendas became increasingly diluted. As a result of being catalysed and energised by these texts (and others like them), the environmental movement gained a reputation for fearmongering.

To this there have been at least three broad reactions. First, anti-environmentalist figures (who are typically advocates of economic growth through the liberalisation of the market) have consistently used texts like these to paint all ecological concern (or at least all such concern that potentially interferes with corporate profit-making) as alarmist.

Second, many environmentalists have decided that fear-based messages may achieve short-term impact but are ultimately counterproductive in the pursuit of lasting change. In its place, they have sought to project win-win messages of positive motivation to effect desired change. Instead of talking about the catastrophic outcomes of business as usual carbon emissions, they focus on the potential for green energy jobs, on the immediate benefits of cleaner air and on the reduction in dependence upon geopolitically unstable regions for fossil fuels.

[40] A more detailed political analysis, which would be required to discern which perceptions of powerlessness may be accurate, is beyond the scope of this project. At this point, it is sufficient to note that such perceptions exist and are relatively common. The conclusion of this thesis will suggest some authors who pursue such political analysis with reference to climate change.

Third, other environmentalists embrace and defend the legacy of these texts, replicating their motifs and messaging strategies. Thus they continue to operate their moral psychology on the basis of generating sufficient abhorrence towards the projected consequences of contemporary trends so as to motivate social change.[41]

The place of fear in ethics: Another option

Emancipatory shock is thus one method of making use of fear in service of climate ethics, and many climate organisations and spokespeople continue to rely heavily upon it. Arguably, it is the primary model used in Al Gore's influential documentary *An Inconvenient Truth* (2006), which probably made a bigger contribution to public awareness of and concern over global warming than any other single text.

But such tactics have come under criticism from some psychologists and sociologists for being frequently ineffective and from ethicists for being manipulative. As an example of the latter, Michael Hulme in *Why We Disagree About Climate Change*[42] argues that treating climate change as a problem to be managed or worse "solved" through the application of the appropriate mix of technology and bureaucracy is to remain blind to the fundamental ethical and social

[41] Slavoj Žižek has articulated a suggested stance of how such emancipatory shock could be understood to work that may avoid some of these criticisms through its refusal of full knowledge. Nonetheless, it still requires the absolutisation of the imagined catastrophe and so instrumentalises fear: "This, then, is how Dupuy proposes to confront the disaster: we should first perceive it as our fate, as unavoidable, and then, projecting ourselves into it, adopting its standpoint, we should retroactively insert into its past (the past of the future) counterfactual possibilities ('If we had done this and that, the calamity we are now experiencing would not have occurred!') upon which we then act today. We have to accept that, at the level of possibilities, our future is doomed, that the catastrophe will take place, that it is our destiny - and then, against the background of this acceptance, mobilize ourselves to perform the act which will change destiny itself and thereby insert a new possibility into the past. Paradoxically, the only way to prevent the disaster is to accept it as inevitable. For Badiou too, the time of the fidelity to an event is the *futur antérieur*: overtaking oneself vis-à-vis the future, one acts now as if the future one wants to bring about were already here. What this means is that one should fearlessly rehabilitate the idea of preventative action (the 'pre-emptive strike'), much abused in the 'war on terror': if we postpone our action until we have full knowledge of the catastrophe, we will have acquired that knowledge only when it is too late. That is to say, the certainty on which an act relies is not a matter of knowledge, but a matter of *belief*: a true act is never a strategic intervention in a transparent situation of which we have full knowledge; on the contrary, the true act fills in the gap in our knowledge." Slavoj Žižek, *First as Tragedy, Then as Farce* (London: Verso, 2009), 150-52.

[42] Mike Hulme, *Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity* (Cambridge: Cambridge University Press, 2009). See also Hulme, "Four Meanings of Climate Change" in *Future Ethics: Climate Change and Apocalyptic Imagination* (ed. Stefan Skrimshire; London: Continuum, 2010), 37-58.

questions that our climate challenge raises.[43] Yet a purely fear-based approach that is not guided by a broader conception of justice (one I would argue can be well articulated through a Christian conception of love) leads, he argues, into a paralysis of thought and a narrowness of action. Instead, Hulme believes we ought to seize the opportunities afforded by the situation to reinvigorate our moral imagination and expand the horizon of our actions, seeking ways forward that not only reduce emissions, but that also address other basic social injustices that help to drive a high-polluting system.

But there is an alternative stream of thought about fear in a number of contemporary thinkers that still seeks to embrace the necessity of experiencing such emotions but which does not see it primarily in terms of emancipatory shock. Instead, fear is affirmed as a healthy response to genuine trauma that ought to be respected as part of a necessary grieving process that can subsequently lead to fresh vision.

Fear, trauma and grief

In concluding his dark volume on climate ethics, *Requiem for a Species: Why We Resist the Truth About Climate Change*, Australian ethicist Clive Hamilton argues that the first of four necessary steps towards responsible climate ethics is to embrace despair.[44] "Awakening to the prospect of climate disruption compels us to abandon most of the comfortable beliefs that have sustained our sense of the world as a stable and civilising place."[45] These comfortable beliefs, according to Hamilton, include belief in the boundless possibilities of human knowledge, achievement and ingenuity and its correlate of unlimited technocratic mastery of our environment,[46]

[43] Managerial or technocratic responses to climate change that avoid engaging with cultural norms and seek incrementalist technological improvements also come under serious criticism in Christopher Groves, "Living in Uncertainty: Anthropogenic Global Warming and the Limits of 'Risk Thinking'" in *Future Ethics: Climate Change and Apocalyptic Imagination* (ed. Stefan Skrimshire; London: Continuum, 2010), 107-26.
[44] Clive Hamilton, *Requiem for a Species: Why We Resist the Truth About Climate Change* (Sydney: Allen & Unwin, 2010), 209-26.
[45] Hamilton, *Requiem for a Species*, 210.
[46] For an excellent theological treatment of technology and technologism, see Brian Brock, *Christian Ethics in a Technological Age* (Grand Rapids, MI: Eerdmans, 2010). Clive Hamilton pursues a critical examination of one prominent form of technologism in the face of our climate crisis, namely geoengineering, in *Earthmasters: The Dawn of the Age of Climate Engineering* (New Haven: Yale University Press, 2013).

but also a fundamental belief in the inevitability of human progress and the likely stability of the society we inhabit and intend to pass on to our children. To these we may add a few more: the dominant neoliberal belief in the efficacy of the free market to deliver rising material prosperity through the enlarging of the collective pie (or indeed all growth-based models of economic justice);[47] the individualistic consumerism that reifies, idolises (and monetises) acquisitive desires while numbing political will through the often chimerical promise of 'ethical consumerism';[48] the assumption that our politics dominated and corrupted by vested interests is nonetheless a functioning democracy;[49] and the widely held assumption named by psychologists the 'just world hypothesis' or 'just world theory', a belief that that people generally get what they deserve (i.e. goodness typically ends up prospering and wickedness is self-defeating).[50]

Hamilton writes: "Relinquishing our rosy view of how the future will unfold is a task more difficult than it may appear because the vision of a stable and sympathetic future undergirds our sense of self and our place in the world." Abandoning, or at least seriously questioning, such cherished notions is for many people a major threat to identity and our experience of our lives as coherent and comprehensible. Perhaps especially for those whose employment has been in high carbon industries (not just fossil fuel extraction and use, but also industrial

[47] For a comprehensive critique of growth-based models of economic justice, see Tim Jackson, *Prosperity Without Growth: Economics for a Finite Planet* (London: Earthscan, 2009).

[48] Christian critiques of consumerism are numerous, though of particular note is the relatively early treatment of the topic by John V. Taylor, *Enough is Enough* (London: SCM, 1975). A more recent treatment by Alasdair McIntosh will be discussed briefly below. Regarding the dangerous placebo of ethical consumerism, see Naomi Klein, *This Changes Everything: Capitalism vs. the Climate* (London: Penguin, 2014), 211-13.

[49] As Pope Francis notes, "It is remarkable how weak international political responses have been. The failure of global summits on the environment make it plain that our politics are subject to technology and finance. There are too many special interests, and economic interests easily end up trumping the common good and manipulating information so that their own plans will not be affected." *Laudato Si'*, §54. The failures of international political responses are devastatingly recounted and analysed in Naomi Klein's *This Changes Everything: Capitalism vs the Climate* (London: Penguin, 2014), 64-95.

[50] Such a belief can be a psychological protection mechanism to distance oneself from the frightening idea that bad things can happen to even good people and the lack of control over life outcomes this implies. By searching for ways to differentiate oneself from victims of misfortune, it becomes possible to blame the victim for some perceived failing and so suppress the awareness of one's own vulnerability to a similar hazard. Such a perspective Christian discipleship ought to have interrogated in any case in light of the dialogue within the canonical wisdom literature between the general optimism of the book of Proverbs and the pessimism of Ecclesiastes and Job. Even in the absence of a climate crisis, the just world hypothesis is a form of delusion expressing a strong status quo bias, that is, a tendency to justify and live with extant injustices lest the attempt to overcome them backfire. As the saying goes, "better the devil you know".

agriculture and the various financial and political institutions that uphold the economic order within which these activities make sense), to take climate change seriously means to bring into question the basic contribution one has made to society, and to discover that far from simply being a neutral or positive provider of necessary social goods, one's efforts also have a major shadow side.

As chapter one explored, in such circumstances, clinging to whatever provides a sense of hope – whether via outright denial of climate science, cherishing false hopes of technological silver bullets, or through any of the various other coping mechanisms previously outlined – can be a psychological lifeline that keeps one's sense of self and sanity afloat. Acknowledging the reality of climate change "means allowing ourselves to enter a phase of desolation and hopelessness, in short, to grieve."[51]

The significance of this grieving process is emphasised in much of the now rapidly growing eco-psychology literature.[52] Yet like with other forms of grieving, the process as it is experienced is rarely linear and the purpose is not to 'get over' the source of grief. Where something genuinely good has been lost, then even healthy grief will often include ongoing sadness long term, albeit modified with new perspectives and possibilities.

Where the harms continue to mount, and where they accumulate in especially unjust patterns, with those least responsible for causing the issue suffering the first and worst from it (as is the case with climate change), then it is more than appropriate that grief remains fresh, even as a deepening insight allows for it to be connected to a renewal of perspective and action. Consequently, Hamilton speaks of the further steps (after despair) as being an acceptance of loss, i.e. healthy grief, followed by a renewal of meaning, in which old patterns of understanding are modified into new insights, and then the taking of meaningful action.[53]

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[51] Hamilton, *Requiem for a Species*, 211. See also Joanna Macy, "Working Though Environmental Despair" in *Ecopsychology: Restoring the Earth, Healing the Mind* (eds. Theodore Rosvak, Mary Gomes and Allen Kanner; San Francisco: Sierra Club, 1995), 240-62.

[52] It is an insight advocated for instance in many of the essays in the provocative collection *Engaging with Climate Change: Psychoanalytic and Interdisciplinary Perspectives* (ed. Sally Weintrobe; New York: Routledge, 2013). For two influential earlier discussions, see Phyllis Windle, "The Ecology of Grief" in *Ecopsychology: Restoring the Earth, Healing the Mind* (eds. Theodore Roznak, Mary E. Gomes and Allen D. Kanner; San Francisco: Sierra Club Books, 1995), 136-48; and Macy, "Environmental Despair", 240-62.

[53] Hamilton, *Requiem for a Species*, 215-26.

Similarly, eco-psychologists Joanna Macy and Chris Johnstone speak of the cultivation of active hope as being a four-part cycle, or spiral: first, coming from gratitude, where the goodness of reality is acknowledged and received as a gift; second, honouring our pain for the world, where we embrace the difficult emotional reactions we have to the trauma of ecological and climate disruption; third, seeing with new eyes, where the embrace of those potentially derailing emotions opens a space for the challenging, modification or replacement of old conceptions, behaviours and systems; fourth, going forth into taking positive action to contribute meaningfully to the situation.[54]

Here once again, fear and other negative emotions have an important part to play. They are not banished lest they paralyse, but nor are they seen as functioning to deliver an emancipatory shock that might lead into a panicked and desperate reaction against the threat. Instead, fears associated with an anticipated catastrophe find their place within a grieving process that takes careful and appreciative note of the fundamental goodness of the world and which embraces creaturely limits in coming to grips with the possibility of actions open to us. These ideas will be explored further in chapter six.

Scottish thinker Alasdair McIntosh offers a further extension of such ideas in *Hell and High Water: Climate Change, Hope and the Human Condition*.[55] Threading a path through mythic literature, philosophy and politics, McIntosh argues that our climate crisis is rooted in a cultural psychopathy of violence and hubris and requires a cultural psychotherapy. Like Pope Francis, McIntosh argues that climate change is deeply interconnected with other cultural and systemic injustices such as war, inequality and resource depletion,[56] and that the psychosocial function of consumerism is to distract us from our overwhelming fear of death. Advertising is the cultural drug that numbs this fear while simultaneously trading upon it. In response, a renewal of human life is required that reconnects with our creaturely limitations and honestly faces our mortality. Logically if not chronologically prior to

[54] Joanna Macy and Chris Johnstone, *Active Hope: How to Face the Mess We're in without Going Crazy* (Sydney: Finch Publishing, 2012), 37-41: this section summarises the spiral and most of the rest of the book unpacks it in greater detail.
[55] Alasdair McIntosh, *Hell and High Water: Climate Change, Hope and the Human Condition* (Edinburgh: Birlinn, 2008).
[56] McIntosh, *Hell and High Water*, 162.

all the technical, economic and political work that is necessary in confronting climate change, is a necessary healing of our inner lives and the narratives we live by. Only in so doing can the ethical deliberations required in these other fields not be derailed by our unacknowledged neuroses and anxieties. This helpfully connects the personal inner turmoil of the psychological disruption associated with the trauma of awakening to the climate crisis with a much broader cultural confusion that pollutes our political and economic systems.

Conclusion

This chapter has surveyed a series of historically significant environmental texts, with a particular focus on Rachel Carson's *Silent Spring* and noted the dominant pattern of employing fear-based messages as a tactic to shock their readers out of their acceptance of the status quo. This has been critiqued and then contrasted with the work of some contemporary thinkers writing specifically about climate change, who desire to retain a significant place for fear, but without instrumentalising it in the hope of delivering a sufficiently liberating jolt of dread. Later chapters will pick up this thread and flesh out what a Christian appropriation of a positive role for fear in the task of deliberating about climate ethics might look like.

But first, let us explore the nature of climate fears a bit further. This chapter has examined some historical analogues of climate fears in the work of authors significant to the environmental movement, placing climate fears in parallel with other threats; Chapter Three will be seeking to understand climate fears in their distinctiveness and historical novelty, in conversation with Hannah Arendt's concept of natality.

Chapter Three

Something New under the Sun?

Hannah Arendt and the Novel Challenge of Climate Change[1]

Awakening to the climate crisis can be overwhelming. Coming to grasp the nature and scale of the threat to society, to dominant cultural narratives and to one's sense of self can generate marked emotional discomfort. Settled assumptions and values are thrown into question and the cognitive dissonance this creates invites a variety of coping mechanisms – distraction, denial, despair, desperation – to maintain some stability of core identity and commitments.

These coping mechanisms in turn can thwart ethical deliberation by offering short-cuts to thought, enabling the self to participate in and reinforce socially mediated forms of apparent apathy, or of tokenistic behaviour geared more for the management of emotional discomfort than for actually addressing the problem. While they may indeed help us cope with our difficult emotions, these mechanisms are counterproductive insofar as they typically fail to address the root cause of the problem that provoked those difficult emotions in the first place.

Chapter One thus considered barriers to moral deliberation and agency based on the dread that can result from starting to grasp some of the likely implications of our present trajectory. Indeed, greater understanding of how our habitual practices contribute to approaching climate catastrophes comes with the potential for even greater moral paralysis. The complexity of the novel impacts caused by our cumulative global agency makes us partially blind when we attempt to make practical judgements. Furthermore, when we attempt to sharpen our vision, the insights gained about the threats to human social order are so confronting that we would prefer not to look. Thus these threats generate a second order threat to our ability to think and to our moral deliberation. Awakening to the threat of climate change can generate discomforting emotional reactions that often spur coping mechanisms that amount to looking away from the issue in different ways. The novel

[1] The title of this chapter is indebted to John McNeill's book, *Something New Under the Sun: An Environmental History of the Twentieth Century World* (London: Penguin, 2000).

features of these threats are particularly well suited for thwarting or at least numbing the sustained moral and political attention they require.

In Chapter Two, we explored one historically common way of seeking to circumvent these coping mechanisms, namely, the delivery of one or more emancipatory shocks through imaginatively exploring a desperately undesirable situation as the predictable, even inevitable, destination of current trends and trajectories. Though becoming shocked at just how objectionable the outcome of our present path is likely to be, a space is opened up for imaginatively re-engaging the present in order to alter that appalling trajectory. The chapter explored some more and less healthy examples of how such shocks might best be delivered if we hope to overcome or at least subvert current dominant cultural narratives and norms.

Yet the process of awakening to the climate crisis also implies that there is something new requiring fresh attention, some novel reality to which we now need to wake up. This very novelty brings with it a second set of challenges to ethical thought, in addition to those encountered as a consequence of needing to process our initial emotional reactions. These extra challenges to ethical thought come from the nature of novelty itself.

Therefore, this chapter will explore the novelty of anthropogenic climate change and its implications for ethical reflection through a consideration of human agency in Hannah Arendt and human and divine agency in the canonical scriptures.

Novelty in the Anthropocene

In many ways, we do not live on the same planet as the one on which our grandparents were born. Behind and underneath the startling pace of technological and social change lies unprecedented and rapid ecological change.

So profound is the ecological novelty of our age that experts increasingly speak of our having entered a new geological epoch, the Anthropocene.[2] The precise definition and timing are contested, but the basic idea is that the "human imprint on the global environment has now become so large and active that it rivals some of the

[2] For an overview of the scientific and philosophical debates around the concept of the Anthropocene, see Jeremy Davies, *The Birth of the Anthropocene* (Oakland, CA: University of California Press, 2016).

great forces of Nature in its impact on the functioning of the Earth system."[3] According to this understanding, at some point in our recent past humanity has departed the relatively benign conditions of the Holocene, that period of relative climatic stability spanning most of the ten thousand years or so since the end of the last great glaciation. In its place, the Anthropocene is a new epoch in which *anthropos* (humanity) has emerged as the dominant force in and upon nature. It is we who are driving the incredibly rapid ecological, atmospheric, hydrological and lithospheric changes witnessed in recent decades (or centuries, depending on your definition). Some of these anthropogenic impacts are novel in themselves, producing substances, events and outcomes not occurring in the natural world prior to recent decades; others are intensifications of processes with long natural and/or human histories, but which have only recently attained a scale sufficient to turn quantitative changes into qualitatively novel results. Novelties are found in the pace, extent and likely duration of changes, as well as in the relative contribution of human effort in provoking them. Anthropogenic climate change is one of the most discussed, far-reaching, complex and imminently threatening of this suite of planetary changes.

If human actions are indeed having an impact that is moving in scope towards comparison with a major asteroid collision, then the reach of our collective agency now extends much further over the horizon of our foresight than ever before. British philosopher and ethicist Derek Parfit puts the historical novelty of our global cumulative agency succinctly:

> Until this century [i.e. the twentieth], most of mankind lived in small communities. What each did could affect only a few others. But conditions have now changed. Each of us can now, in countless ways, affect countless other people. We can have real though small effects on thousands or millions of people. When these effects are widely dispersed, they may be either trivial, or imperceptible. […] For the sake of small benefits to ourselves, or our families, we may deny others much greater total benefits, or impose on others much greater total harms.[4]

[3] Will Steffen, Jacques Grinevald, Paul Crutzen, John McNeill, "The Anthropocene: Conceptual and historical perspectives" in _Philosophical Transactions of the Royal Society A 369 (2011): 842-67.
[4] Derek Parfit, *Reasons and Persons* (Oxford: Oxford University Press, 1984), 86.

We now have the capacity to contribute to processes that will affect more lives than we can imagine over timescales beyond the grasp of our usual moral imagination. Indeed, not only do we have such capacity, but the habitual practices and economic structures of modern life ensure that the vast majority of us actualise this potential every day through our more or less necessary participation in a global economy that brings ever more disruption to the ecological and climate systems of the planet.

Human actions have always had inscrutable consequences, echoes beyond the control or even perception of the actor. But the avalanches currently being triggered by our footfalls potentially leave us stranded in our grasp of moral agency, unable to comprehend the meaning of our acts. Hannah Arendt had already articulated this consequence in 1958:

> We do not yet know whether this situation is final. But it could be that we, who are earth-bound creatures and have begun to act as though we were dwellers of the universe, will forever be unable to understand, that is, to think and speak about the things which nevertheless we are able to do. […] If it should turn out to be true that knowledge (in the modern sense of know-how) and thought have parted company for good, then we would indeed become the helpless slaves, not so much of our machines as of our know-how, thoughtless creatures at the mercy of every gadget which is technically possible, no matter how murderous it is.[5]

The difficulty of thoughtful comprehension of our new capacities presents an initial and very significant impediment to ecological responsibility in an age of novelty.

Clive Hamilton and the revaluation of all values

Amongst a rapidly growing literature in the social sciences reflecting on the nature and implications of the concept of the Anthropocene (and of the ecological, economic and civilizational realities to which it points), Clive Hamilton's recent book *Defiant Earth* stands out as a particularly vigorous articulation of the implications of the novelty of this new epoch for ethics.[6]

[5] Hannah Arendt, *The Human Condition* (2nd ed.; Chicago: University of Chicago Press, 1958), 3.
[6] Clive Hamilton, *Defiant Earth: The Fate of Humans in the Anthropocene* (Cambridge: Policy, 2017).

Describing the "narcotising effect" of "the accumulation of facts about ecological disruption", Hamilton explains that it is critical for us to awaken or open ourselves to "the full meaning of the Anthropocene", because continuing with our Holocene assumptions, perspectives, values and practices puts us dangerously out of step with Anthropocene realities.[7] So great is the rupture between before and after, that he speculates we actually are entering not just a new epoch, but a new geological era (the Anthropozoic) "on a par with the break in Earth history brought by the arrival of multicellular life."[8]

Humanity is a force like Earth has never seen, not because Earth has not experienced cataclysmic upheaval before, but because this time, the force in question is conscious, capable of (at least somewhat) understanding the monumental processes we ourselves are participants in. This comprehension is expressed for Hamilton in the shift from Earth sciences to Earth System science, "the integrative meta-science of the whole planet understood as a unified, complex, evolving system beyond the sum of its parts."[9] In a similar way to how the science of ecology emerged from the application of systems thinking to biology, so Earth Systems science comes from the application of systems thinking to each branch of the Earth sciences, studying the Earth as a total system, not just a collection of ecosystems.

Unless this shift is grasped, then the kind of claim bound up with the term 'Anthropocene' will be misunderstood. It is not simply that humanity is having an increasing effect on this or that ecosystem, but that we have become a dominant force or power upon the Earth system as a whole. This is why Hamilton argues for a late date for the onset of the Anthropocene, putting it after World War II, rather than at other frequently suggested earlier points, such as back at the dawn of the Industrial Revolution, or at the Colombian Exchange, or even back at the Agricultural Revolution.

Hamilton distinguishes his argument from ecomodernists on the one hand and Marxists on the other. The former want (somewhat naively, according to Hamilton) to embrace the Anthropocene as a good development, as the next step in the expansion of human mastery of the planet (and beyond). The naiveté comes in the

[7] Hamilton, *Defiant Earth*, ix-x.
[8] Hamilton, *Defiant Earth*, 4.
[9] Hamilton, *Defiant Earth*, 11-12.

assumption that the hitherto robustness and resilience of nature has not been compromised or eclipsed by the rise of human technologically-enhanced agency. Yet this, according to Hamilton, is precisely what the Anthropocene has done, leading the Earth (and its inhabitants) into a "no-analogue state". We have never been here before.[10]

In contrast, Marxists reject the term 'Anthropocene' as too broad, when the primary drivers of global change are a subset of humanity, those with the power and money to be the avatars of the real force dominating the Earth system: capitalism. Hamilton offers two main arguments against this. First, he points out that the industrial and agricultural activity driving global systems changes is increasingly located in the global South (especially China and India), rather than the global North.[11] Yet this substitutes a nationalist analysis where Marxist critique is focused on class and political economy; it is still the capitalist elite in China and India driving the changes. Second, he argues that 'Anthropocene' is the correct term as the rupture in question is a species issue, not simply a consequence of certain social formations (whether defined as capitalism or techno-industrialism). Yet again, his understanding of "the hegemonic power of capital" seems to rest upon fairly simplistic notions of "the willing collaboration [of] the broad populace"[12] without engaging with what Edward Herman and Noam Chomsky call "manufactured consent" or the long history within critical Theory of understanding the apparent consent of the oppressed in the systems that oppress them.[13]

Hamilton urges that we discard all obsolete notions that have guided previous ethical systems and ecotheologies, whether notions of human domination, good stewardship, a loving Mother Earth or a passive and suffering Nature.[14] In their place, he articulates "a new anthropocentrism" that combines humility regarding human wisdom and foresight with a hefty dose of responsibility, based on honesty about the scale of our power.[15] With great power comes great responsibility.

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[10] Hamilton, *Defiant Earth*, 23-25.
[11] Hamilton, *Defiant Earth*, 27-35.
[12] Hamilton, *Defiant Earth*, 60.
[13] Edward S. Herman and Noam Chomsky, *Manufacturing Consent: The Political Economy of the Mass Media* (New York, NY.:Pantheon, 1988).
[14] Hamilton, *Defiant Earth*, 48.
[15] Interestingly, there are more than a few parallels between the structure and conclusions of Hamilton's argument here and that put forward by Hans Jonas decades earlier in *The Imperative of*

This revaluation of all values is no Nietzschean expression of an unconstrained will, but the inescapable, almost tragic, burden of finding ourselves in this particular historical moment. The humble anthropocentrism he desires is no hubristic expression of supreme self-confidence, nor a programmatic vision of ever increasing technological mastery, but an acknowledgement of a descriptive reality about a genuine and earth-changing novelty. Continuing to live out old ideas and ideals is a negligent shirking of our obligations. By refusing to wake up to our new situation, we risk the very existence of all life as we currently know it. While Hamilton claims that his account "puts itself outside the usual debate over values",[16] his argument is based on the assumption that ensuring the survival of humanity (or perhaps of civilisation) trumps all other considerations (an assumption that will be interrogated in Chapter Four).

For Hamilton, the novelty of the Anthropocene is radical. This is a "no-analogue state", meaning that a vast gulf exists between the naïve Holocene world and the sober realisation of the unparalleled human capacity for destruction today. There can be no return to innocence. The Anthopocene is, in effect, a new Fall, one without hope of salvation, indeed, one where even to hope for personal salvation is to indulge in damnable escapism.[17]

Consequently, Hamilton's account of the novelty of the Anthropocene and its implications sees many traditional Christian beliefs as romantic befuddlement at best, a self-serving irresponsibility that we can no longer afford. Yet must we choose between awakening to the climate crisis and awakening to God's call? Are these truly incompatible? Is any Christianity that takes climate seriously going to end up so transformed as to be unrecognisable? If so, then discourse around climate ethics will almost inevitably engage many Christians in identity protective cognition, provoking defensiveness, dismissiveness and denunciation.

The rest of this chapter will seek to articulate a more nuanced way of understanding novelty, in conversation with both Hanna Arendt and the scriptural

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Responsibility: In Search of an Ethics for the Technological Age (trans. Hans Jonas, with the collaboration of David Herr; Chicago: University of Chicago, 1984 [1979]). Jonas' position, and its disturbing implications, will be explored in Chapter Four. Certain kinds of anthropocentrism will be critically examined in Chapter Six, though it ought to be noted that Hamilton's is quite a nuanced version.

[16] Hamilton, *Defiant Earth*, 55.

[17] Hamilton, *Defiant Earth*, 160.

narrative of divine newness, one that might be capable of honesty about the profound ethical implications of our unprecedented climate context while also drawing deeply upon old Christian narratives and ideas.

Novelty: The concept of the new

What do we mean when we speak of the novelty of our climate crisis? What is it that is new about our circumstances today? What kind of novelty does it represent? What are the implications of this for the possibility of ethical thought and action? To clarify what might be meant by such a claim and to distinguish it clearly from some potential misunderstandings, let us consider the concept of the new.

The new stands correlated and contrasted with the old. The pairing of new and old speaks of a temporal ordering in which a previously unknown element emerges. There is a before, during which the old is not known as old, but simply as the way things are, and an after, in which the new has rendered what came before old. Without the arrival of something previously absent, what is present is not yet old.

The new, in order to qualify as such, requires but two characteristics. It must be other than what is present and it must arrive after it. The difference between the two need not be great. It is enough that the new is other than what came before it even in some minimal respect. They may even be two instances of the same kind: a new day, a new year, a new toothbrush. Alternatively, of course, they may be very different, and yet, for the comparison to be meaningful, there must be some sense in which it is worth bringing the two things under a single consideration. Once that is done, the temporal element then introduces the crucial relationship between the two rendering one new and the other old. Unless the two can in some sense be placed into the same frame, then the temporal relation is unable to come into view. But when the two are comprehended in a single gaze, then the difference in their temporal placement can come into focus and the concept of the new becomes useful. There may be some trivial sense in which international communism is new in comparison to Alpha Centauri, but the comparison holds little interest. The arrival of the new makes old primarily that to which it bears some kind of meaningful relationship, rather than simply making everything old in comparison.

Consequently, when something new arises, we may seek to understand it by asking what has thereby been made old. The emergence of the new corresponds to the simultaneous occlusion and visibility of the old. On the one hand, what is old is familiar, while the new is strange, and curiosity prefers the latter, moving from what is known to what is unknown. In this way, the new initially represents a void in knowledge, a question mark that draws the eye. Yet, since it is only new in comparison to some old, then the answer to the question posed by the new lies in its relation to what came before. If the new is to be recognised as something, then this recognition depends on a comparison to what has come before and so brings the old back into focus. The new thus re-places the old, resituating it amidst a landscape that now looks somewhat different. This re-placing may simply be a confirmation of what the old already appeared to be, and it can comfortably be put back where it was. Or it could be a re-placing through displacing the old with the new taking the space it formerly occupied. Or it may fall somewhere between the two: a revision of the old that neither displaces it nor simply reaffirms it.

Thus, the appearance of the new opens up the possibility of a fresh understanding of what had seemed quite familiar and ordinary until that point. In this way, the new also makes new; it is a disturbing force that unsettles fixed locations, putting old landmarks in a new light. When the new arrives, what was there previously becomes old in comparison, but in the very act of recognising what is new about the new, the old is seen afresh and is renewed. This renewal consists of yet another comparison, this time between two instances of the same object: one prior to the arrival of the new and one subsequent to it. What it was before is now made old; what it has become is itself new. A young woman gives birth to a child. The existence of her child renders her old in comparison, but it also renders old her identity as a childless woman. She too has become new, a new mother.

In this way the new is both destructive and productive. Destroying what came before – or at least consigning it to history – it also drags its entire context into a fresh constellation by its very appearance. This is true whether the arrival of the new supplements or supplants the old. A new wife supplants the bachelorhood of a former bachelor, creating a husband. A different new wife supplements the existing wives of a polygamist, and yet still renders the former marital arrangements old.

The difference, however, between supplanting and supplementing is still important as it indicates two different modes of newness. A replacement may be another instance of the same type (a new tyre in place of the one that blew) or a new type that fulfils the same function (a new bicycle in place of the car that is too difficult to park and too expensive to run). The former kind of replacement may be spoken of as renewal, though what is specifically new about the situation may be far less important than what has remained the same. The point of replacing is generally to avoid change, or rather, to undo a change that has already occurred. Something whose function is still desired has become old, the tyre that blew is now the old tyre, even before a replacement can be procured. The continuity of the desire for a functioning tyre means that when it ceases to perform that function it has already become old. The new in this case is the imagined and desired replacement.

The latter kind of replacement opens up a more radical possibility, since the functioning of the new will not be identical to that of the old, rendering the function itself susceptible to change. This in turn may reconfigure the entire situation in subtle or radical ways. My new bicycle may lead me to question why I live so far from work, or why our political system gives such weight to the preferences of drivers. This too can be called renewal, though its connotation is quite different from that mentioned above. The first kind of renewal is the reestablishment of the status quo in order to ensure maximal continuity; I renew my driver's license so as to continue in all my former habits. The second kind of renewal involves the reconfiguration of all the elements in a system so that everything now appears fresh; I allow my license to lapse and find cycling gives me a new vision of movement, proximity and community.

The new does not always supplant the old; it may instead supplement it. Again, the effect can be trivial or radical. A new shirt joins the ranks of underused garments in a cupboard; a new friendship opens doors previously undreamed of. Sometimes, many small additions, trivial individually, can accumulate to a radical ultimate difference. One traveller crosses a bridge. A new traveller appears and joins the first in walking the span. Although the second may bring interesting new interpersonal possibilities, the relationship between bridge and travellers is only trivially modified by the addition. A third or fourth new pedestrian add nothing more

except slight congestion to our narrow bridge. Before long, adding new walkers generates enough traffic that the resulting situation is qualitatively different as there are too many people on the bridge for any newcomer to get past without difficulty. Ultimately, a threshold is crossed, the bridge collapses under the weight of footfalls. Each considered individually made little appreciable difference, but their cumulative effect was a drastic second-order novelty in which the impact of the whole was greater than the sum of the parts. From the repeated addition of small new things, each in itself unremarkable, emerged a situation whose novelty was of an entirely different order. On the one hand, the development of congestion on a busy bridge illustrates a gradual shift into a qualitatively new situation through many small quantitative changes. On the other hand, many systems contain points at which gradual quantitative changes can result in very significant and sometimes dramatically sudden qualitative change, as the walkers who ended up in the river discovered.

It is in this light that the novelty of our climate situation is best understood. Nearly all of the component contributions are entirely unremarkable, merely new instances of very familiar types: burning fuel to gain useful energy, raising livestock, clearing forest for fuel or farmland. In particular, coal use goes back many centuries, with the first regulation of coal burning being enacted in London in 1308 due to the declining air quality resulting from overuse.[18]

There is also nothing particularly new (from the perspective of human civilisation) about humanity suffering harm due to exceeding local ecological thresholds: losing game from a forest through over-clearing, local air pollution from burning coal, and so on. The true novelty of recently observed climate change is what we might call a third order novelty. If first-order novelty consists of each new act supplementing the last (such as cutting down a tree) and second-order novelty is a qualitative change that occurs through the accrual of a sufficient quantity of first-order acts (such as the depletion of local supplies of old-growth timber and reduction in local biodiversity through lost habitat), then third-order novelty is the qualitative change born from the sum of the second-order effects, surpassing the sum of its parts in scale, scope, pace, permanence and consequence (such as long term biota shift,

[18] Michael S. Northcott, *A Political Theology of Climate Change* (London: SPCK, 2014), 57.

extinctions, hydrological cycle disruptions and climate change from wide-reaching deforestation). This third-order novelty also includes the many, sometimes unexpected, interactions between the various threats associated with climate change: rising seas flooding or eroding permafrost in the high Arctic and speeding its thaw; coral bleaching leading to loss of protection from storm surges made worse by rising seas and more intense storm systems.

This is not the place to expound the empirical case for these changes and their lack of historical precedent, nor to consider the magnitude of the threat they collectively pose for human society and the whole community of creation on earth. Let it suffice here to note that on almost every metric of ecological significance, human actions over the last sixty years or so have been responsible for myriad changes that dwarf in scope and pace anything that has been known since the dawn of human civilisation. In many cases, they dwarf anything for millions of years, or even in the entire geological record. Many of these changes are far from benign, but are already appreciably undermining the conditions in which a global society of almost seven billion was made possible. Having offered this preliminary conceptual analysis of the concept of the new, let us consider one influential theorist of novelty and her account of its implications for human agency.

Hannah Arendt and *The Human Condition* (1958)

Hannah Arendt (1906-75), a German Jew who received her education from Heidegger, Husserl and Jaspers, three twentieth century intellectual giants, later became one herself and is now recognised as amongst the most influential contributors to modern political thought. She fled Germany for Paris in 1933 and then fled Paris for New York in 1941. Having had her autobiography shaped by the transformations and paroxysms of Europe at war, it is perhaps no surprise that she wrote the paradigmatic account of totalitarianism, in both Nazi and Stalinist forms. She saw the Holocaust and the Gulag as a decisive rupture in history, preventing any uncritical use of traditional political categories and requiring fresh moral judgements. Yet in this she did not wish to simply abandon the past and begin *de novo*, as though that were even possible. Instead, from out of the rubble of the collapsed tradition, she

hoped to regain instances of genuine illumination to stimulate thought and action in her own time.

Arendt took the idea of ruptures in history from another Jewish political philosopher to have suffered Nazi persecution, Walter Benjamin.[19] Arendt agreed with Benjamin that history is characterised by dislocation and displacement, rather than gradual development and thus historiography is necessarily fragmentary. This means that rather than seeking to grasp the logic of history or its necessary trajectory (whether of progress or regress), Arendt sought to recover promising elements of the past with the potential for actualisation today. With Martin Heidegger, her onetime mentor, she looked above all to the experience of classical Greece, seeking to redeem its philosophical treasures from the occlusions, accretions and forgetfulness of subsequent tradition.[20]

While totalitarianism was the rupture that defined Arendt's earlier life and thought, by the time she came to write her best known and arguably most important work, *The Human Condition* in 1958, she had widened the breadth of her analysis and was attempting to frame an understanding not just of the modern *age* that began in the seventeenth century and which culminated in totalitarianism, but of the modern *world*, "a new and yet unknown age" born in the skies over Hiroshima and in Sputnik's escape beyond even the sky.[21]

In *The Human Condition*, Arendt wanted to articulate the conceptual tools for investigating the surpassing historical novelties of her post-war context by giving an account of human agency that emphasised the human capacity for newness. To understand what she meant by newness, it is necessary to sketch her threefold account of human agency expressed in three related but for her quite distinct terms: labour, work and action. She argues that the distinctions between these are woven into most European languages as a result of the foundational experiences of the classical Greek *polis*, yet subsequent tradition has muddied the waters.

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[19] Walter Benjamin, "Theses on The Philosophy of History" in *Illuminations* (trans. Harry Zorn; London: Pimlico, 1999 [1955]), 245-255.

[20] My reading of Arendt is indebted to Maurizio Passerin d'Entrèves, *The Political Philosophy of Hannah Arendt* (New York: Routledge, 1994). For further on Arendt's concept of natality, see: P. Bowen-Moore, *Hannah Arendt's Philosophy of Natality* (London: Macmillan, 1989); Margaret Canovan, "Introduction" in Arendt, *Human Condition*, vii-xx; and Robert Bernasconi, "Arendt" in *A Companion to Continental Philosophy* (eds. Simon Critchley and William R. Schroeder; Oxford: Blackwell, 1999) 478-83.

[21] Arendt, *Human Condition*, 1, 6.

Labour, work and action are "fundamental human activities because each corresponds to one of the basic conditions under which life on earth has been given to man."[22] First, labour is the activity required to sustain "the biological processes of the human body" as an unavoidable part of life on earth. It is derived from "the ever-recurring life cycle" and so is generally repetitive in nature. Its effects are transitory, needing to be regularly repeated. Its value is basic in both senses of the word: it is necessary for the possibility of higher forms of activity, but of ephemeral value. Growing and cooking food, maintaining basic hygiene, disposing of waste: these are all labour.

Secondly, work is the activity through which a persistent "artificial" human world is fashioned, whether the physical world of buildings, railways and submarine internet cables, or the intersubjective world of culture: art, writing and amusing cat gifs. This world is artificial in the sense of being the result of artifice, of human creativity introducing forms and arrangements not found in nature, and which are generally intended to outlast individual human lives. The carpenter, the composer and the copyright lawyer, the potter, the painter and the Pintrest user: all are workers.

Third and highest of all is action. Action is "the only activity that goes on directly between men without the intermediary of things or matter".[23] If labour is grounded in physical needs of earthly existence and work in the desire to inhabit a human world, action is the activity that arises from membership in a *polis*. While all activities are somehow related to politics, it is action that lies at the heart of being political animals (*zoon politikon* in Aristotle's definition). Politics and the possibility of action is grounded in plurality, that is, in the multiplicity of human individuality, in "the fact that men, not Man, live on the earth and inhabit the world. […] Plurality is the condition of human action because we are all the same, that is, human, in such a way that nobody is ever the same as anyone else who ever lived, lives or will live."[24] Plurality means the ever-present possibility of something new, the unique individuality that gives us each something distinctive to contribute to our life together. Action is the human activity that actualises this possibility. Action therefore cannot be as easily identified with social roles as labour or work. It is not merely for

[22] Arendt, *Human Condition*, 7.
[23] Arendt, *Human Condition*, 7.
[24] Arendt, *Human Condition*, 7-8.

the politician, nor for the activist, though perhaps these represent different approximations of it. Action very often takes the form of speech, and is always communicative. One cannot act alone, or even for oneself. One always acts with, against, amongst, despite or for others. To act is to start something new, to begin a new train of events, to rupture the seemingly inevitable with the unexpected and unpredictable.

So these three activities – labour, work, action – each have their own spheres and are judged according to their own criteria.[25] A given person may at different times participate in each: a farmer may work at repairing a plough before labouring to till the soil (even if she is driving a tractor, this is still labour) and at the end of the day take action with others in chaining herself to a drill rig to protest and prevent a new mining project.

Action, plurality and natality

While they each have their dignity and dangers, it is action above all that makes us distinctively human. Arendt's cherishing of the inexhaustible human capacity for novelty accords with her understanding of history as non-linear and fragmentary, as discussed above. Her interpretation stands in contrast to dominant historicist historiography in which the events and movements of history are accounted for in terms that make developments seem natural or obvious.[26] Such historicism results in an abdication from political life and genuine action. When we take our cues from "the way things are going", we occlude the fact of genuine human agency, the capacity present in all of us to surprise even ourselves with a rejection of existing logic and structures and to create, or better, to *generate*, newness.

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[25] Some aspects of Arendt's work here seem problematic. This is not the place for a full critique of her account of the *vita activa* – the threefold schema of labour, work and action. But the centrality of the sacraments of washing and eating to Christian thought and practice suggest an embrace of creatureliness in a way unable to be easily accommodated in Arendt's account of a human world that is fundamentally unnatural, even as it relies upon nature for sustenance. Similarly, some activities are not at all easily categorised: for instance, what is the meaning of planting a tree? It is too lasting to be labour, too natural to be work, too mediated by a non-human thing to be action. Is the tree that is planted part of earth or world or polis?

[26] A more detailed critique of historicism as de-potentiating human agency, or as a flight from responsibility, can be found in a recent essay by Oliver O'Donovan, "The Signs of the Times: Moral Discernment in an Unintelligible Present". Sydney: Australian Broadcasting Corporation, 2015. Online: http://www.abc.net.au/religion/articles/2015/09/01/4304329.htm. Accessed September 2015. The influence of Arendt on at least the first half of this piece is strong.

Why "generate"? Because it is natality, the birth of new unique individuals, that maintains the plurality that is the condition of action. Contra Heidegger, it is natality, not mortality, that ensures humans are true to what we are. Unlike Heidegger's emphasis on the solitude of *Dasein* in the face of death as making us essentially human, Arendt reclaims a fundamentally political anthropology.[27] That is, action is possible not because we know we are mortal and embrace our being-towards-death, but because we know that we have the capacity to generate new individuals and with them manifold new possibilities.

Natality is thus a pivotal concept for Arendt's political philosophy. New people are coming into the world, capable of the miracle of beginning something fresh, interrupting, subverting, overthrowing the chain of effects of previous actions. New initiatives mean that human history is never subject to the chains of necessity. Fatalistic despair at stagnation or inevitability is overcome in the ever-present hope of something new. This is what freedom means. Not an Augustinian internal capacity of the will, but a political reality grounded in our awareness of contingency and creativity.

Yet plurality is both the enabler and the thwarter of action. On the one hand, plurality opens up natality, but it also prevents any sense in which humanity as a whole can act. Humanity *qua* humanity cannot take responsibility for history. In contrast to a quasi-Marxist eschatological narrative in which humanity takes charge of its own destiny and forges a glorious revolution against all that is past, Arendt's account is at once more contingent and more complex. It is humans, not humanity, that can act. It is the indissoluble plurality of humans that means these acts can be neither predicted nor summoned by sheer force of will. They are contingent, but never able to be reduced to the conditions in which they occurred.

When the action of one agent interacts with the action of another, the outcome may be something quite different from what either intended. The messiness of action makes securing particular results almost impossible. Every new act is of course subject to the same lack of control over its rippling effects as the old ones were, rendering action both the glory and part of the frustration of the human

[27] See for instance, Martin Heidegger, *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude* (Bloomington: Indiana University Press, 2001 [1983]), the text of a lecture course delivered in 1929/30.

condition. The agent cannot predict the effect of her own initiatives, which may result in all manner of contradictory and undesirable ramifications. Such unwanted outcomes cannot be erased or undone; the unforeseen legacy of action is its inescapable burden.

This radical contingency, irreversibility and unpredictability of action means that action is itself constantly in need of further action. There is no decisive 'final solution' to the human predicament. The damaged past cannot be healed, nor the unknown and unknowable future made safe, only further actions taken.

Yet partial and temporary remedies to these twin problems are available in the human capacity to forgive and to promise. The cycle of violence and chains of revenge can be broken by the gratuitous act of forgiveness. With this, the power of the past to compel the shape of the present is broken, or at least lessened. Arendt was all too aware of the fragility and limits of forgiveness, which as a form of action can never be coerced, demanded or even expected. Crucially for our purposes, Arendt saw forgiveness as able to break only the chain of *human* consequences of past action. Forgiveness provides no help for the causal chain initiated by our "action in nature", such as detonating nuclear devices or excavating gigatonnes of carbon from geosequestration and dumping it into the active carbon cycle.

Therefore, faced with the potentially irreversible consequences of a future in which the possibilities of human flourishing are diminished, the only way of coping with a hidden yet threatening future is the human capacity to promise. Here Arendt draws on the thought of Friedrich Nietzsche in characterising promise as a way that people come together and bind themselves for the sake of a desired future.[28] In this way "islands of predictability" can be thrown into the "ocean of uncertainty"[29] and promise can be a way of approaching a hidden future. The power of working together towards a shared vision partially ameliorates the haphazardness of a plurality of agents introducing ever more unpredictability. Yet promises are only as binding as the respect they are given, and as contingent as all other human actions. Even the attempt to formalise promises in covenants, contracts and constitutions and

[28] Friedrich Nietzsche, *On The Genealogy of Morals: A Polemic. By way of clarification and supplement to my last book Beyond Good and Evil* (trans. Douglas Smith; Oxford: Oxford University Press, 1996 [1887]), II §1. Unlike Nietzsche, however, Arendt focuses on political promises and discounts promises made to oneself.
[29] Arendt, *Human Condition*, 244.

to introduce sanctions against their breach itself relies on promise, the promise that such penalties will indeed be imposed or accepted. Furthermore, all promises, from formal and painstakingly negotiated international treaties to casual agreements between friends, are vulnerable to the disruptive initiatives of other agents. I shall return to the possibilities of promise and forgiveness below.

In conclusion, Hannah Arendt's *The Human Condition* is a dense and complex reflection on the new situation in which humanity finds itself in a technological age. Arendt's notion of natality is an attempt to grapple with the potential for newness present in each generation, a perennial possibility that has nonetheless emerged into a novel constellation in modern society. Human capacity to effect widespread and long lasting change has multiplied, yet the ability to foresee the effects of those changes has not expanded at the same pace.

The novelty of our technological power, where the consequences of our decisions and habits stretch inestimably far beyond the horizons of our spatial or temporal vision, is itself a challenge to the natality of human regeneration. That is, we now find ourselves in a situation never before faced: humans can end natality through the extinction of humanity. Even in the darkest depths of totalitarianism, where human nature was smothered almost to death, natality ensured the possibility of a new beginning. But at the very point totalitarianism was being overthrown, a new and greater threat emerged with the rise of nuclear weapons and planetary ecological catastrophe, a threat to the very possibility of anything new at all, at least in Arendt's conception.

The ecological developments of the industrial age – especially the great economic and demographic acceleration of the last six decades – represent a series of morally significant historical novelties, and our current trajectory of climate change in particular is taking us deep in uncharted waters. Quantitative changes to natural systems have reached a point where a variety of qualitative differences are experienced or anticipated. The impacts of these changes on human and natural systems are likely to be profound and complex. Even societal collapse, as Joseph Tainter and Jared Diamond have documented, is no mere theoretical possibility.[30]

[30] See Joseph A. Tainter, *The Collapse of Complex Societies* (Cambridge: Cambridge University Press, 1988) and Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Viking, 2005).

The pace and scope of changes represent a challenge for thought to conceive and respond to such novelties. Thus the first threat to moral deliberation represented by climate changes is simply one of incomprehension. Arendt's text offers conceptual resources for articulating the novelties of our situation in productive ways. In the next section, I will place her analysis in dialogue with scriptural conceptions of novelty. Having thus explored the concept of the new and Arendt's use of natality to articulate human agency, let us see how this picture may relate to and differ from the concept of newness in the Christian scriptures. Doing this will also highlight some of the limitations of the language of novelty in relation to the topic of ecological novelty and the de-potentiating effect of this novelty. The potentiating newness from the biblical texts is part of the solution suggested here. The discussion of newness in this chapter aims to introduce the concept of a scale of newness where, as Arendt showed, sufficient newness renders us speechless and paralysed, without categories.[31]

"In the beginning": newness in the first testament

The Hebrew scriptures are full of beginnings: most obviously the creation account with its famous opening line, but also the postdiluvian re-commission of Noah, the divine call of Abram and promise of new nationhood, the exodus, covenant, conquest and kingdom in which those promises began to take concrete form, and then the strange life after the 'end' where exiled and scattered children of Israel had little but the promise of a new covenant. These beginnings are quite diverse in their character and theological import.

The creation account is not like other narrative beginnings. The latter are really recommencements, points at which the thread is picked up again and a backstory assumed or sketched in. This is not a beginning, selected for the sake of narrative convenience, but claims to speak of *the* beginning. Can anything be said to

[31] "We do not yet know whether this situation is final. But it could be that we, who are earth-bound creatures and have begun to act as though we were dwellers of the universe, will forever be unable to understand, that is, to think and speak about the things which nevertheless we are able to do. […] If it should turn out to be true that knowledge (in the modern sense of know-how) and thought have parted company for good, then we would indeed become the helpless slaves, not so much of our machines as of our know-how, thoughtless creatures at the mercy of every gadget which is technically possible, no matter how murderous it is." Arendt, *Human Condition*, 3.

be new in the act of creation? Can there be a new without there also being an old? It is perhaps notable, though not decisive, that the language of newness is not present anywhere within the narrative. The new does not appear with creation, which is the condition of possibility for there to be either new or old at all. In the re-telling of the creation story in the prologue to John's Gospel, the decisively new does not appear until verse 14: "The Word became flesh and dwelt amongst us". For something to be new, it must appear *in medias res*.

Where, then, does the new appear in the old covenant? Although the relevant Hebrew term for newness (*hds*) is relatively rare, the overall narrative clearly contains frequent developments that introduce previously unmentioned perspectives. Indeed, it may be said with particular emphasis that the concept of the new is at the heart of all the major covenantal events.[32] After the de-creation of the flood, God begins again with Noah, blessing all the inhabitants of the ark with the same blessing offered back in Genesis 1: *be fruitful and multiply*. This is an invitation to begin the story of creation afresh. Yet all is not the same as it was in the garden. Now the relation between humanity and the other creatures is to involve fear. The new thing is still in close relation to what went before. God has not abandoned his original plan and replaced it with a new one. Yet in the sweep of the Genesis narrative Noah is indeed a second start for humanity. Each of the major covenantal developments displays a similar pattern, from the calling of Abram, to the exodus and Sinai, to the kingdom of the Davidic line. At each point, fresh elements are added to a trajectory that retains its divine initiative and fundamental direction.

"See I am doing a new thing": The novelty of exile and its redemption

Nonetheless, the relative infrequency of the *hds* root seems to emphasise the overall continuity, or at least not draw much attention to those aspects of the covenants

[32] An interesting side question that will not be addressed here is whether the origin of evil constitutes an alternative newness, and subsequently whether the newness associated with the covenant is already a response to the making old of creation through the fall and ongoing human rebellion? Or can evil in its parasitic relationship to the good, never be genuinely new, only able to offer variations on the complex world of goods that are inferior and so inherently less interesting? If so, perhaps when they first appear, they do not make the world old, but the freshness of creation's goodness may be said to make them already old.

previously unspecified.[33] When used as a transitive verb ('to make new'), the context is frequently related to God's saving acts, in which the old is equated with failure and judgement, and the new corresponds to a divinely initiated movement towards redemption.[34] When found as an adjective, *hds* regularly refers to newly crafted objects, though many of these have symbolic or cultic value, occurring in contexts where the newness is a way of ensuring the object has not formerly been engaged in profane functions but has been reserved exclusively for sacred use.[35] Its use as a description of experiences in the Old Testament is very rare. Where the term does occur with theological import is almost exclusively related to the exilic hope for a new start for the scattered people of God. Three groups of usage appear in the prophetic literature: the former and the new things in Isaiah 40-48; the new covenant and new heart and spirit in Jeremiah 31 and Ezekiel 36; and the new heavens and new earth of the last chapters of Isaiah. However the debates over the dating of Isaiah are resolved, the latter half of the book is focalised through an exilic perspective, and so all these uses are thus associated with this particular context.[36] The vocabulary of newness is drawn upon in a situation so bleak that the former continuities can no longer be relied upon. If the covenant faithfulness of YHWH is to be vindicated amidst the darkness of exile, the destruction of the temple and the extinguishing of the Davidic line, then what is required is something decisively new.

In each of these three clusters of use, the arrival of something new is the result of YHWH's initiative, taken on behalf of his covenant people. The new things of Isaiah 40-48 refer to the divine plan to execute his judgements through the foreign king Cyrus, underscoring the inability of Israel to bring forth its own saviours and so the depth of her predicament. The new covenant in Jeremiah 31 is more than another moment of covenant renewal, but again underlines the failure of Israel to be a faithful covenant partner from the heart. Outward conformity is insufficient. Only a new human heart of flesh can match the call for a radical renewal of the relationship

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[33] Pieter A. Verhoef, "*hds*" in *New International Dictionary of Old Testament Theology and Exegesis*, Volume 2 (ed. Willem A Van Gemeren; Carlisle: Paternoster, 1997), 30-37.
[34] Verhoef, "*hds*", 31.
[35] Claus Westermann, "*hadas*" in *Theological Lexicon of the Old Testament, Volume 1* (eds. Ernst Jenni and Claus Westermann; trans. Mark E. Biddle; Peabody, MA: Hendrickson, 1997), 395.
[36] For a summary of the scholarly debates over dating the various sections of Isaiah, see John N. Oswalt *The Book of Isaiah 40-66: The New International Commentary on the Old Testament* (Grand Rapids, MI.: Eerdmans, 1998), 3-6.

between YHWH and Israel. In the final chapters of Isaiah, the wholehearted divine recommitment is expressed through the renewal of not only Israel, but also the entire created order.

"New every morning": YHWH's faithfulness and scriptural newness

Thus, fundamentally, the new in the Hebrew scriptures is a function of divine faithfulness. From this perspective, even otherwise apparently anomalous references, such as the well-known couplet in Lamentations affirming YHWH's mercies are "new every morning", fit the pattern. Far from an affirmation of a cyclical renewal of the relationship with the divine, found in various neighbouring cultures, the reference serves to underscore the unfailing covenant love (*hsd*) of YHWH for the children of Israel. The daily faithfulness of YHWH is not a fixed backdrop or recurring pattern against which human society finds its rhythms, but is YHWH's unswerving commitment to building the covenant relationship. The paradigmatic instance of daily faithfulness, manna in the wilderness, illustrates the point. Far from being a timeless demonstration of divine providence, the narrative is at pains to depict YHWH as journeying with the Israelites on their exodus from slavery to liberty.

The final collection of appearances of the term 'new' are associated with the 'new songs' with which the community of Israel responds to the new acts of YHWH on her behalf.[37] The call for fresh songs demonstrated not boredom with the existing repertoire but the startling difference God's new action made.

"Nothing new under the sun": Some final reflections

Let us return briefly to a further consideration of Qoheleth's refrain ("There is nothing new under the sun") in the light of these points. What does he really mean, that there are no variations on the tune or that the same piece of music continues to be played? Ecclesiastes seems to deny a history to the created order. Not just that it has its own history, but that this history intersects with human history, influencing and then also being influenced by human history. Yet today, the history of the

[37] Psalm 33.3; 40:3; 96.1; 98.1; 144.9; 149.1; Isaiah 42.10; cf. Revelation 5.9; 14.3.

created order is increasingly subsumed within the human story.[38] The aggregation of quantitative changes has led to qualitative change in the relationship between humanity and the rest of the created order. This shift does not render Qoheleth's claim useless, but it does not require certain further qualifications. If the recurrence of natural processes is the backdrop against which human actions seem insubstantial and ephemeral, then the human capacity to scar the natural order in ways previously unimaginable makes certain kinds of human acts now far more lasting than Qoheleth seems prepared to admit.[39]

"Behold, I make all things new": Newness in the new covenant

Throughout the latter parts of the first testament, wherever the concept of a great new act by God begins to take root, the promised new is constantly held out as expected rather than manifest. The texts point forward beyond themselves to a future fulfilment not yet adequately contained in any of the anticipatory historical formations that the prophetic tradition of renewal interpreted or helped inspire.[40]

Intertestamental Judaism, inspired by the great exilic prophecies, generated many messianic figures and movements seeking to seize hold of the grand gestures and dreams that arose while in exile. Their constant failures did not crush such hopes, but kept pushing them forwards, and in some places, radicalising them even further into more highly developed eschatologies of expectation.

The early Christian church can be understood as the most prolific and creative of these expressions, a movement so thoroughly defined by a commitment to the new act of God that its more extreme fringes flirted at times with abandoning historical Judaism entirely. A comprehensive treatment of the newness of the new covenant would require a volume in itself. For our purposes, let us note the explosion of nouns attracting the adjective 'new' in the canonical witnesses to the Christian message: new covenant, new commandment, new creation, new life in the Spirit, the new *anthropos*, new heavens and new earth, a new name, a new Jerusalem, a new

[38] Clive Hamilton, *Defiant Earth: The Fate of Humans in the Anthropocene* (Cambridge: Polity, 2017), 1-4.
[39] For further discussion of the historical context of "nothing new under the sun", see Tremper Longman III, *The Book of Ecclesiastes: The New International Commentary on the Old Testament* (Grand Rapids, MI.: Eerdmans, 1997), 58-74.
[40] See Jürgen Moltmann, *Theology of Hope*, chapter 2.

song, a new way.[41] Almost everything associated with the saving work of Jesus Christ is given the label 'new'. As with previous experiences of divine salvific activity, the original work of creation is used as an analogy.[42] Yet the Christian attribution of messianic novelty to Jesus of Nazareth went well beyond any previous claims, shaping even the doctrine of God in new and unexpected directions. What was new in this Christian message was not simply a better and decisive way of salvation arriving in response to prophetic expectation, but a reconfiguration of the meaning and scope of salvation and even a serious rethink of the being of the saviour God.

At the heart of the newness in the New Testament message stands the resurrection of Christ from the dead. This belief was the spark and inspiration that saw a crucified prophet and failed messiah become the centre of a movement executing a comprehensive redesign of Jewish theology (and subsequently, a refashioning of the entire ancient Roman world and beyond). This was the centre around which Christian eschatological expectation was woven. The reason why this motif became so important in fashioning Christian thought about the new was that the claim that God had raised Jesus from the dead represented a very significant innovation in Jewish theology. Belief in Jesus' resurrection meant that God had done for one Israelite in the middle of history what he had promised to do for all Israel at the end of times.[43] If a resurrection from the dead has occurred prior to the general resurrection of the dead, then the ultimate renewal of life and creation over against the forces of death and destruction has already begun. Yet since all other bodies remain stubbornly in their graves, this commencement is only partial or proleptic. The old age continues even as the new one appears in its midst.

This dynamic of the appearance of the radically new within the ongoing history of the old deeply influenced every facet of early Christian thought and

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[41] For a more detailed discussion of the two key New Testament terms (*kainos* and *neos*) and their closely overlapping uses, see Colin Brown (ed.), *New International Dictionary of New Testament Theology*, Volume 2 (Carlisle: Paternoster, 1986), 669-76. See also R. A. Harrisville, 'The Concept of Newness in the New Testament' in *Journal of Biblical Literature* 74 (1955), 69-79.

[42] John 1.1-14; 2 Corinthians 4.6; 5.17; Galatians 6.15.

[43] See N. T. Wright, *The Resurrection of the Son of God. Christian Origins and the Question of God, Volume 3*. (London: SPCK, 2003) for a comprehensive survey of all the relevant texts concerning the resurrection beliefs of pre-Christian Judaism, contemporary classical thought and the early Christians themselves.

practice and represents one of Christianity's most significant contributions to the history of the concept of the new.

Climatic vs. theological novelty

Returning to our present climatic situation, can we speak here of something new? How are we to relate the novelty of climate change to theological concepts of novelty? The novelty of climate change is distinct from both the shadow of nuclear holocaust as well as space exploration, which were the two reference points for Hannah Arendt. There was no Sputnik launch, no flash in the New Mexico desert, no decisive point at which it could be said "here is something new" and the dawn of a new age obvious. Nor is it like the birth of Christ, a momentous event at a particular historical moment, yet one easily missed by its contemporaries. Still further is it from the resurrection, which does not simply inaugurate a new age, theologically speaking, but redefines how we are to understand the relation of different ages.

In contrast to all these, our climate predicament is an existential and game-changing threat that has arisen gradually, cumulatively and incrementally – gradual on a human timescale, of course. Here we reach the critical point. That at the heart of what is new about our situation is a consideration of various timescales and the pace of change. On the one hand, we are familiar with existential threats that unfold rapidly. A deadly pandemic or nuclear holocaust operates on a timescale of weeks or hours respectively, but either is quite capable of seizing and holding human attention at personal, communal and societal levels. They fit within the frame of our projects and so can be directly compared to what we were going to do otherwise.

On the other hand, we (at least those with some scientific literacy) are also familiar with the combination of deep time and the second law of thermodynamics, which together ensure the ultimate destruction of our sun and the possibility of life on earth. The threat carries the weight of great inevitability. Even science fiction dreams of colonising distant systems and galaxies must contend with the heat death of the universe (or big crunch, depending on one's calculations and/or imaginative preferences). But as a factor in human deliberation, such matters are so far outside the scope of our consideration that they serve as undercurrent or backdrop. They teach us important facets of the human condition (indeed, the creaturely condition),

but do not themselves appear as direct threat to be avoided, addressed or accepted.[44] Likewise, concerns about the long-term evolutionary destinations of the *homo sapiens* exceed the temporal limits of our ability to conceive and execute action.[45] Such considerations may shape our self-understanding and so exercise an indirect influence on our behaviour, but are not themselves objects of moral inquiry.

In contrast, climate change sits in the troubling middle distance, moving too quickly to be safely ignored, but too slowly to gain the requisite political, communal and personal attention to address the threats adequately. What is new then is threefold: the pace of change in the planetary climate system,[46] that this rapid change is simultaneous with the largest expansion of human society in history (that is, this is the first time *we* have faced such change, certainly since the rise of agriculture, and never before have so many lives been at stake) and, third, for such change to be occurring through the agency of rational agents who are both aware that it is happening and of their role in it. Billions of years ago, cyanobacteria utterly changed the face of the planet – a greater change than anything on the cards at the moment (at least from a geochemical point of view) – but the shift took millions of years and the creatures responsible had no consciousness the dramatic effects their accumulated metabolic processes were achieving.

Interlude on analogies: Nuclear vs. climate novelties

To further clarify the nature of the ecological novelty we face, it will be instructive to specifically compare and contrast it with the threat of nuclear annihilation, a threat which one might initially be tempted to think of as analogous to the threat posed by climate change. Certainly, there are some similarities. Both have the potential for

[44] For an interesting reflection upon the function of deep time in ecological deliberation, see Christopher Cokinos, "The Consolations of Extinction" in *Orion Magazine* (2007). Online: http://www.orionmagazine.org/index.php/articles/article/268/. Accessed July 2011.

[45] Arguably, genetic engineering on the one hand and artificial intelligence on the other both bring the horizon of these questions well within morally relevant distances.

[46] Which may or may not be comparable to previous events – a major meteor strike could be even faster, though few (if any) other effects that come close to rivalling the scale of our changes can compare to the speed of human impacts. For example, previous glaciations and deglaciations may be in the same ballpark for scale when compared with likely twenty-first century surface temperature change on our current trajectory, but on a timeframe many times longer; warming of the magnitude expected in the next century or so on our current emissions trajectory took ten thousand years during deglaciation events. Put another way, anthropogenic warming this century could be as much as one hundred times faster than warming during the most recent deglaciation.

critically undermining the conditions of possibility for industrial civilisation. Both are global in scope. The nuclear threat and ecological threat represent something of a threshold experience for humanity in the expanding reach of our collective agency. In these two threats, we have become aware for the first time that not just this or that human life is in our power to terminate, but that we could self-destruct on a global scale. Self-caused human extinction has become thinkable; not just of humans, but the devastation of the natural world on a scale previously unimaginable. Both are not merely natural threats, but have our fingerprints all over them; both occupy timeframes relevant for ethical consideration (unlike, say, the heat death of the universe).

There are, however, also a number of significant differences. Ecological threats are not the work of a small number of agents deliberately threatening destruction. Rather it is the cumulative result of a wide range of habitual acts performed for other purposes, many of which may initially seem morally trivial or even praiseworthy when considered in isolation. This cumulative character is important, because from the perspective of any one agent, his or her actions contribute a negligible, infinitesimal amount. Even when gathered at national levels, most nations can easily point to the utter inadequacy of unilateral action. For instance, much political mileage has been gained by opponents of responsible action on climate by highlighting the trifling amount of warming caused or avoided by this or that national policy under discussion. There is no single villain, no single activity or institution or nation which bears such a great portion of responsibility that others are let off the hook. No one can be accused of negligence who cannot also point to countless other guilty parties. Every activity, project, policy or lifestyle choice can excuse itself by calculating its miniscule contribution to the total problem.

Furthermore, unlike the nuclear threat, ecological threats are slow burning. Nuclear holocaust potentially involves stepping more or less straight from quotidian existence into the end of civilisation and possible extinction of humanity within a matter of days or weeks. While it is likely that prior to any nuclear exchange there would be a period of escalating tensions and conventional warfare to warn off what is ahead, nonetheless, the actual deployment comes suddenly and the effects are almost immediately catastrophic for all life on earth. Quite apart from the direct

casualties of the explosion and even the associated radioactive fallout, the consequences for human society would be global and dire. Research on a 'nuclear winter' resulting from the dust blasted into the stratosphere from a large (>5,000 Mt) nuclear war suggests that within a week or two, global temperatures would drop by more than ten degrees, within weeks stratospheric ozone would be significantly depleted, and so within months any survivors of the initial blast and fall-out would face freezing and unpredictable weather along with virtually the complete eradication of plant life, including food crops. Sick, cold and starving, the vast majority of those who lived through the initial explosions would probably die in less than a year.

In contrast, global ecological crises build over decades, even centuries, with a wide variety of dangers exhibited progressively and cumulatively over time (though not necessarily evenly distributed in either geography or temporal sequence). Even more difficult to predict than the ecological sequencing are the social effects of severe climate disruption and ecological degradation. The most important headlines about the effects of climate change may not mention climate at all. These effects may also play out over years and decades, perhaps with flash points over food or water crises triggered by particular meteorological events that play into the vulnerabilities of the human political and economic systems. Indeed, many of the social consequences are likely to be *indirect*: flooding or drought leading to displaced people; infrastructure costs associated with rising sea levels adding an additional burden onto national budgets; riots over price spikes in basic commodities; regional tensions exacerbated by water stress; trade wars over dwindling supplies of or, access to, crucial resources; rising social tensions from differing opinions over the best way to respond; the erosion of civil liberties from governments concerned at social unrest due to economic stagnation or decline. In short, ecological crises impact most powerfully on human societies where they are likely to take the form of an exacerbation of existing social problems.

The elongated character of the threat more likely spells a long social decline than a sudden crash. Of course, there may be particular points at which crucial pieces of infrastructure are lost, or particular political systems transform rapidly and chaotically. It may be a series of uneven steps down rather than a cliff or a gradual slope. Metaphorically, it is somewhat analogous to the difference between being shot

in the head or chest and dying within minutes versus receiving a terminal cancer diagnosis. This brings in two further factors of the ecological threat worth noting. First, since the ecological crises threaten human society in a variety of disparate and somewhat unpredictable ways, the complexity of the outcome retains winners and losers for much of the time. At any given point in the path down to lower levels of social complexity, there will be people who benefit. A large-scale nuclear holocaust would probably fairly quickly become post-political, or at least would revert to local and tribal level politics within the blink of an historical eye. In contrast, ecological decline could see (and indeed already is seeing) a wide range of political responses, from populist denial and impossible hopes, to technocratic elites seeking eco-fascism to a renewal of localism.

The biggest difference between the threat from nuclear weapons and from our ecological crises is their respective current statuses. The threat of nuclear holocaust remains real and ever just minutes away, with thousands of missiles still kept on hair-trigger alert. Yet for the last six decades, with some close shaves, the danger has remained merely potential. All nuclear missiles currently have, and hopefully will, stay in their silos. Of course the nuclear weapon industry in a wider sense has already caused certain forms of social damage through ongoing background stress, budgetary drain and the justification of a highly militarised security state. These are genuine problems. Yet by themselves they are not civilisation-ending threats in the way that an actual large nuclear conflict would be.

On the other hand, we have already begun the walk into ecological decline. Much damage has already been done, and much more is already committed as the lags within the climate and ecological systems slowly respond to present levels of disruption. With massive coordinated global effort and the transformation of consumer culture worldwide, it is probably still possible to avoid the more extreme ecological consequences – and the likely associated social upheaval. But it is not possible to avoid the damage already evidenced; that which is already ‘in the pipeline’. Thus in contrast to the never-yet-quite-actual nuclear war, the covert ecological war we are waging against the biosphere and ourselves has already begun. Many of the ‘missiles’ have already been deployed and some have struck their

targets – perhaps not yet enough for the collapse of contemporary global civilisation, but all the more dangerous for not being as obvious.

Another final difference to note between nuclear holocaust and ecological degradation is that while the former relies on an all-or-nothing, almost simultaneous decision by a very small number of agents (two national executives of nuclear-armed states are all that is required), climate change is an evolving catastrophe: "It is the cumulative effects of marginal decision making that result in collective ruin."[47] Altogether these significant differences help further elucidate the novelty of the climate threat.

Accounting for the new moral field

Nevertheless, as has been suggested above, the novelty of our present climatic situation ought to be kept quite distinct from the eschatological 'new thing' spoken of in the scriptures.[48] What is at stake is rather the repetition of old patterns, habits and effects but at such a pace and scale as to lead to a materially different situation, in which quantitative changes combine to have a qualitatively different result. Prior to the fourteenth century, there had been disease and death in medieval Europe, but the Black Death brought such mass mortality that it shifted the balance of social power towards the now scarce peasant labour. Prior to Columbus, there had been exploration of new lands, but not until the *Pinta*, *Santa Maria* and *Santa Clara* struck land in the Caribbean and returned to Spain was there biological transfer between the Old and New Worlds on a scale and pace that transformed the dietary habits of the Old, sparked a colonial land grab, restarted the slave trade and eviscerated the population of the New. Deforestation, demographic change and climatic shifts had occurred in the British isles since the early Neolithic, but it was not until the shortage of timber, growing population and relatively lower temperatures of the early modern period that the scope and pace of coal exploitation drove certain technical

[47] Stephen Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford: Oxford University Press, 2011), 110.

[48] This claim requires further substantiation via an account of the function of apocalyptic literature in order to reject any claim of direct identification between our present distress and the vivid depictions of cataclysmic tribulations in the book of Revelation. It is crucial to not be over hasty in offering premature accounts of the theological meaning of contemporary events. It has been a tendency of many ages to see themselves as harbingers of the *eschaton*. It is appropriate to cultivate a certain kind of agnosticism towards the temporal and causal relation between today and the end of the ages.

innovations in powering water pumps in the mines that became the engines of the Industrial Revolution. In each of these cases, the novel situation was not caused by any kind of eschatological arrival from heaven, but resulted from taking an old thing far enough and fast enough to emerge into a drastically different situation – one posing new ethical questions, or rather, old questions in new ways, and with new force and vigour.

In the complex field of interrelated goods that moral vision appreciates and upon which moral thought deliberates, the balance of what attracts attention and requires reflection has thus shifted to a particular configuration never before encountered. In a brave new world of climate distress, articulating the shifts that have occurred in our moral context can help to identify where certain factors and fears may paralyse or attenuate moral thought. The threats to contemporary life posed by our climate troubles can generate fears in various directions. They may include apprehension about personal safety or loss of wealth, the anticipation of a more difficult life, or uncertainties about food security or political stability. For some, fears crystallise around imaging an increasingly harsh and difficult world for their children or grandchildren. For others, questions of the cultural continuity or societal collapse arise. Others again will find ecosystem discontinuities highly upsetting when considering the good and beautiful things being irretrievably lost. With the dangers taking so many different forms, there is a fear of the unknown, and yet an uneasy sense that the scale of the problem is sufficient to disrupt the status quo, even perhaps to overthrow cherished notions of societal progress.

Evaluating the likelihood of different scenarios is a task for those with more relevant expertise, yet many experts consider the gravity and span of the menace quite credible. There is a rising tide of increasingly dire warnings published by reputable scientific bodies around the world. Although some undoubtedly exploit such fears for financial or ideological reasons, it is difficult to dismiss the plausibility and even likelihood of scenarios involving catastrophic damage and disruption, or to categorise all such fears as unfounded.

Western civilisation has a long history of living with apocalyptic nightmares. The perception of an imminent end to life as we know it would not have been alien to citizens of the late Roman Empire, nor to the inhabitants of medieval society. Yet

the threat represented by a rapidly changing biosphere contains certain elements that render contemporary fears intensely novel. We are in a new place and waking up to the contours and challenges of this context is critical for ethical thought and action. Yet it is possible so to construe and communicate this novelty as a radical attack on all existing identities and narratives that the likely response will be defensive and the effort largely counterproductive. For those most concerned to honour what is genuinely new and transformative in the climate crisis, it therefore may well be worth the effort of seeking to articulate this newness in productive conversation with extant traditions.

The novelty of anthropogenic climate change does indeed present challenges for Christian theology and ethics. In particular, the relationship between Christian eschatology, apocalyptic and the prophecies of climate doom will be considered in more detail in Chapter Four, the connections between climate and Christ's passion and crucifixion in Chapter Five, and the doctrines of both creation and resurrection will be the focus of Chapter Six. In each case, I will offer readings of these traditional doctrines that seek to remain recognizably faithful to core Christian tenets while keeping the nature and scale of the climate crisis in full view.

This chapter has emphasised the novelties of living in a new planetary epoch, and the consequent novelties of the fears associated with awakening to this situation. Yet this is not to say that there are no partially analogous contexts, simply that the dissimilarities are significant enough to warrant renewed reflection on the ethical location and function of fear. Our next chapter turns to one influential account of what responding to existential threats from ecological catastrophe could look like in the thought of Hans Jonas.

Chapter Four

Beyond Survivalism

Hans Jonas and the Apocalyptic Imagination

We live in fearful times. There are personal fears: fears of loss, of rejection, of suffering and death. But there are also fears that relate not only to possible outcomes in my own life, but which concern threats to society as a whole. I might fear the loss of my job, but I could also fear an economic recession. The latter may have a close relationship with the former, but it is a broader fear, one I may hold even while my own position seems quite secure. The danger is not simply to me, but to society more broadly, to its prosperity and perhaps even to its civility. I may fear not simply that life will become harder for me and those I know, but also that widespread economic hardship will significantly damage the tone and wellbeing of society as a whole. So not only are there personal fears, but there is also such a thing as societal fears.

Despite the widespread media coverage that economic fortunes receive, there are larger societal fears afoot than simply a recession, even a depression. For many who follow the longer-term trends and patterns, there is a deep concern that the trajectory of modern globalised consumerist society is heading not simply for a temporary downturn or necessary economic adjustment, but is speeding off an ecological and climatic cliff. At the bottom will be more than just a bump.

Ice sheets melting, island nations disappearing, crops wilting, displaced people on the move, geopolitical tensions rising, ecosystems collapsing, inescapable heat: it is not difficult to recognise in climate science the potential for global catastrophe. New and unexpected impacts continue to be identified. A recent study from the University of Leicester even suggested that rapidly rising ocean temperatures could disrupt the photosynthetic patterns of the phytoplankton that supply roughly two thirds of Earth's atmospheric oxygen, leaving all life struggling to breathe.[1]

[1]Yadigar Sekerci and Sergei Petrovskii. "Modelling of Plankton–Oxygen Dynamics Under the Climate Change"**.** *Bulletin of Mathematical Biology*, 2015 77(12): 2325–2353; doi: 10.1007/s11538-015-0126-0. While it is important to note that atmospheric oxygen levels are unlikely to decline to a dangerous level anytime soon, such a dramatic long term potential impact of climate disruption illustrates the complex and global nature of the changes already underway.

Apocalyptic nightmares are nothing new. As was discussed in Chapter Three, there have been other periods that have raised deep and widespread societal fears about the imminent end to our current way of life. Those in living memory that are perhaps most notable are the early years of the Second World War and the threat of nuclear holocaust during the darkest hours of the Cold War. Nazi military imperialism or nuclear winter would signal in different ways radical disruptions in social and cultural continuity, including, but not limited to, massive loss of human life. Yet, as I argued in Chapters One and Three, climate change presents a novel constellation of features that make it an ethical imperative to consider climate fears in distinction from other catastrophic situations that have commanded widespread attention.

This chapter considers responses to the apocalyptic. In particular, it contrasts different understandings of the role of fear in moral deliberation. A deep vein of popular imagination carries the understanding that catastrophe or the apocalyptic falls outside of normal moral agency. Faced with matters seemingly beyond human control, violent responses – whether from the individual or a political authority – are the only possible response. This reflects one framing of fear (in this case, of destruction or loss): it must be overcome. The chapter explores this framing both in the popular imagination and also through the work of Hans Jonas, as well as through the different understanding of fear in classical and ancient Christian thought. In the work of Thomas Aquinas and Augustine, especially, fear is intimately connected to discovering and exploring our loves. I conclude by arguing that this understanding of fear resists easy claims of over-coming through strength or rescue by divine fiat.

Taking responsibility for our fantasies

Rowan Williams has offered an analysis of contemporary western nightmare scenarios as found in our popular culture of film and "cheap paperback fiction".[2] He argues that there is a new and disturbing pattern to the imagination of catastrophes, defined by an "uncontrollability and unpredictability" that removes them from the human scale. In this way, such threats are conceived amorally; it is no one's fault.

[2] Rowan Williams, *The Truce of God: Peacemaking in Troubled Times* (Norwich, Canterbury Press: 2005), 3.

Whether a force of nature that strikes without warning, or technological failure on a scale beyond the ability of a non-expert to remedy, or occult hostility from beyond the human sphere, or psychotic violence by an irrational individual, or uncontrollable bestial assault, or even terrorism by fanatics whose motive (where it is considered at all) is a pure ungrounded hatred – all such fantasies imagine the absence of human responsibility in causing the threat. The violence comes from outside; unbidden, unstoppable. "Violence is never something that ordinary human beings *decide to do*."[3] It is beyond or below our moral evaluations to investigate the causes of these disturbances. They are simply irrational and inhuman. "Uncontrollable force has been unleashed against us and we are helpless victims."[4]

Faced with such situations, all that can be done is an emergency response. Such measures may need to be harsh and forceful, but are not considered problematically violent because they are a legitimate and necessary defence. The threat is conceived as in some way external to moral consideration and so it is more important that the response is effective and immediate than for it to be measured or morally considered. Indeed, this simplification of the moral universe in such a way as to prioritise efficacy over moral deliberation is arguably part of the attraction of post-apocalyptic fiction.[5]

To pick a dominant trope in contemporary pop culture, the ubiquity of zombie apocalypses permits the audience of such works to enter an imaginative milieu in which mere survival so dominates the attention that there is little space to think or need to do so. In the face of such de-humanised mobs, overwhelming indiscriminate violence is not only justified, but presented as obviously necessary. To navigate this kind of narrative world successfully generally requires some combination of stamina, speed, luck and skill, but rarely a capacity to reflect upon one's agency or actions. If moral choices are presented within such a dystopian future, they are frequently stripped of most of the usual horizons of action,

[3] Williams, *The Truce of God*, 7; italics original.
[4] Williams, *The Truce of God*, 4.
[5] The ethical simplicity of the post-apocalyptic world is acknowledged by Akiva Goldsman, screenwriter for a number of post-apocalyptic films, such as *I am Legend* (2007), in a video discussion entitled, "Why Everyone is Obsessed with the Apocalypse" (Cracked, 12th January 2016): "I think that post-apocalyptic movies for the most part are about simplification. Even though typically the context is elaborate in the way it destroys the world around you, the world is unbelievably simple. So I think that they are kind of wish fulfilment." Online: https://www.youtube.com/watch?v=h6Klr_z03DA. Accessed February 2016.

particularly reference to wider societal goods and long-term consequences. Instead, the immediate need to stay alive so dominates priorities that a moral state of emergency justifies the suspension of most ethical norms. Insofar as interpersonal ethics remains, it is often reduced to the most basic level of trust; a small band of individuals must work together to maximise their efficiency in navigating the myriad threats of a hyper-hostile world.

Such trust is based on recognising common humanity. Indeed, the most complex moral dilemmas typically presented are, first, whether the protagonist is willing to extend trust to an unknown potential companion, whose human status is as yet unknown, and second, whether the protagonist will withdraw such recognition with sufficient speed and violence when a previously trusted companion becomes infected. Thus, successful survivors are those most willing to engage in very tight boundary maintenance between in-group and out-group, with the willingness to implement lethal violence acting as the tribal bond and barrier.

Yet it is not only zombie fiction that exhibits such narrowing and flattening of the moral landscape. The whole genre of what might be called post-apocalyptic "catastrophe porn" corrupts our moral imagination by tempting us to embrace the liberation that comes with entering survival mode. The constant need to take the next effective action to stay alive permits the indulgence of a form of ethical laziness, in which complex social and political realities are collapsed into black and white moral landscapes. Here spaces signify little more than danger or safety; one's surroundings are instrumentalised into useful resource or distracting background, and one's intersubjective experience is flattened to identifying friends or foes. As Williams argues, presenting threats as amoral, arising uncontrollability and unpredictability, occludes questions of political or societal ordering. The frequent trope of enemies being presented as less than subjects with moral agency – whether zombies, aliens, "mindless" terrorists or impersonal forces of nature – baptises the use of lethal violence or overwhelming force as redemptive.

Zombie apocalypses are thus training in fascism. Fascism is the triumph of action over thought, where getting things done in order to survive is cherished to the exclusion of nuanced moral reflection, where the chief moral virtue is in-group loyalty cemented with violence towards a de-humanised out-group, and critical

thought extends only to calculations about inclusion or exclusion from the in-group based on a ruthless logic of efficacy.

Moving from film to politics, consider the figure of the strong man demagogue, making a contemporary comeback in presidents such Putin, Erdoğan, Duterte and Trump. In each case, supporters lionise the president for his perceived efficacy; he gets things done. At the same time, he articulates a narrative of in-group identity based on existential threat, in which the dehumanisation of enemies is the precursor to the use of violence. His followers find in him the promise of ensuring survival in the face of those threats, and the promise of achieving the rebirth of their political identity purified from troubling complexities. Even beyond the obvious examples, similar logic is implicit in much of the populist discourse around terrorism: the identity and security of an in-group can only be preserved through hyper-vigilant patrolling of the boundaries – both the literal national borders, and the ideological borders of acceptable opinion – with efficacious force.

The common thread to this tendency is to subordinate ethical deliberation to the question of ensuring survival. In the face of existential threat, all other questions recede. When the imagination is filled with apocalyptic fears of the catastrophic end of the world, then a state of exception is readily accepted and all moral qualms can be trumped by simple calculations of efficacy. Desperate times call for desperate measures; effective action has no time for ethical action.

Re-moralising climate

While this may be one common pattern in popular culture, it has a mirror image, and one particularly relevant to our focus upon the conditions of possibility for climate ethics. Consider the familiar pattern of response after a major weather-related disaster, such as bushfires or floods. Some politicians treat the event as an unpredictable and unavoidable occurrence, a freak event outside the attribution of blame, in which all one can do is comfort the victims and begin picking up the pieces. Their critics respond to this de-moralisation with a re-moralising of the

disaster: it is caused by human actions changing the climate and so there are human agents to blame for the damage and deaths.[6]

In unveiling climate change as cause, we are promised the *meaning* of these events. The loss of life and livelihoods now become comprehensible once again. Guilt lies not with a faceless, heartless monster of nature, nor even with the reckless stupidity or malice of a deliberate arsonist, but upon all of us, or perhaps especially upon our leaders and the vested interests that want to keep profiting from carbon pollution. This is a second response to disasters but, interestingly, in many ways it is the mirror image of the first. Whereas it is common in popular fiction to portray violence as amorally non-human, other social commentators account for it in entirely human terms. We are *entirely* responsible and ought to have handled the situation better, to have avoided the conditions under which the disaster occurred.

These two approaches offer a basic distinction between active and passive relations to catastrophes. We are in control of our own destiny and actions with a kind of Sartrean "absolute responsibility" and thus entirely to blame, or we are the hapless victims of forces beyond our direction or even forecast. Both extremes are too simplistic. The illusion of complete passivity and the consequent moral absolution that it entails is the flip side of a delusion of complete control, in which we are individually or collectively responsible for all that occurs and can be blamed for all negative outcomes. Between these two extreme positions lies the notion of limited responsibility, which is vital for mature ethical deliberation. To act on the assumption of limited responsibility means relinquishing the twin childish fantasies of total control and total passivity. It means to act with the expectation that my actions contribute to my future and that of others, without exhaustively determining the outcome. It is to see oneself as one agent amongst others. Only such a conception of agency holds open the space for action capable of thinking what it is doing.

How then might we account for fear in ways that do not lead to the paralysis or the trumping of thought? This is the challenge that needs to be addressed next. We

[6] An example of this two-fold dynamic can be seen in the responses to the 2009 Victorian bushfires that killed 173 people and injured over four hundred. For instance, Freya Matthews, "Scientists warned us this was going to happen" in *Sydney Morning Herald* (10 February 2009). Online: http://www.smh.com.au/environment/global-warming/scientists-warned-us-this-was-going-to-happen-20090209-82bx.html. Accessed August 2016. Of course, this is not the whole story of Prime Minister Rudd's immediate response, since as the disaster was unfolding, he was also labelling the suspected arsonists "mass murderers".

shall briefly consider three historical accounts in Aristotle, Thomas Aquinas and Augustine of Hippo, before turning to a more detailed consideration of a twentieth century thinker in Hans Jonas. Through the classical and Christian writers, we can develop an understanding of fear as serving an honourable role – awakening us to neglected loves through the fear of loss, for example. Fear may be disordered insofar as it is directed towards the wrong object of love, but it can also lead us deeper into love of one's neighbour or, indeed, away from sinning. In contrast, we will see that Jonas, by giving absolute priority to survival in the new context of threat to human life, articulates fear as a matter to be overcome.

Aristotle and Thomas Aquinas on fear

One classic treatment of fear can be found in Aristotle's discussion of courage in his *Nicomachean Ethics*. As with the other virtues, courage (*tharsos*) is the midpoint between two vices, in this case recklessness and timidity; courage is "a mean with respect to things that inspire confidence or fear".[7] According to the philosopher, someone who is brave is neither rash nor timid, but is one "who faces and who fears the right things and from the right motive, in the right way and from the right time".[8] So for Aristotle, fear is a failure of courage. To put it positively, courage is fear in the right place, namely, fearing the appropriate thing to the proper degree and at the apposite time. Fear is only therefore a fault when it is out of place. Otherwise, it serves a useful function of alerting the subject to possible undesirable eventualities, motivating actions that thwart or minimise the harm. Indeed, in its right place, fear is a positive virtue.

Thomas Aquinas built on these insights, filling out the picture of the right and wrong kinds of fear. Fear is a passion of the soul that is the result of imagining an imminent and not easily resisted evil, a loss of something we love.[9] Fear is thus a servant of love as it reveals to us the objects of our love through recoiling from the anticipation of their loss. It is the correlate of hope, which is imagining a not easily attained good. Thus he notes that fear (*timor*) is not only contrasted with courage

[7] Aristotle, *Nicomachean Ethics* (ed. and trans. W. D. Ross.; Oxford, UK: Clarendon Press, 1925), Bk. III, c. 7, 1116a10-13, 163.
[8] Aristotle, *Nicomachean Ethics*, Bk. III, c. 7, 1116a10-13.
[9] Thomas Aquinas, *Summa Theologica* (trans. Fathers of the English Dominican Province and revised by Daniel J. Sullivan; Chicago: University of Chicago Press, 1952) I-II.41-43. Cf. II-II.123.

(*audacia*), as Aristotle declared, but also with hope (*spes*).[10] Fear is contrary to courage in the direction of movement of the soul – the former shrinks back from threat while the latter boldly draws near – and it is contrary to hope in the possible future object it imagines, i.e. evil rather than good. Aquinas can thus affirm the cardinal virtue of courage while also embracing the theological virtue of hope. This extra dimension gives his account greater psychological insight into the loves that fears reveal when those loves are placed at risk.

So for Aquinas, fear becomes problematic when it is wrongly directed or proportioned. As Scott Bader-Saye puts it (summarising Aquinas), either we fear *what* should not, or we fear *as* we should not.[11] An object of fear may be inappropriate for one of four reasons. First, it may be of insignificant magnitude to be a genuine threat. Many common phobias fit this description: injections, spiders, open or closed spaces. Second, we may fear a genuine threat that is not proximate and we are vanishingly unlikely to encounter personally: a plane crash or terrorism. Third, we may fear something "of magnitude and imminent" but that "does not actually threaten a loss of what we love".[12] Bader-Saye's example here is marriage equality for LGBT people (or previously, interracial marriage). Some Christians fear that legalising same-sex marriage will undermine traditional marriages, yet there is little evidence this is likely or that those jurisdictions to have already legalised such marriages have seen anything like this outcome. Fourth, we may fear an object that genuinely threatens something we love, but which we ought not to love. Aquinas calls this "worldly fear" and includes the fear of losing "money, power, possessions, fame, leisure, or status".[13] These things don't deserve much love, and so their threatened loss is not, for Aquinas, an appropriate object of fear.

Even if we fear an appropriate object, it is still possible to fear in an inappropriate manner. We fear *as* we should not if our fear is *excessive*, that is, if seeking to avoid our fear comes at the expense of doing what is good and right.

For Aristotle, the objects of fear reveal the base or noble character of the subject. To fear disgrace but not death in battle is the mark of an excellent individual.

[10] Thomas Aquinas, *Summa* I-II.45.1-2.
[11] Scott Bader-Saye, *Following Jesus in a Culture of Fear* (Grand Rapids, MI: Brazos, 2007), 52-59.
[12] Bader-Saye, *Following Jesus*, 55.
[13] Bader-Saye, *Following Jesus*, 55.

Indeed, the life of a warrior is the primary lens for Aristotle's interest in courage (and therefore, fear). Aquinas' account is more flexible, enabling fears to play the positive role of awakening the subject to previously unnoticed objects of love. The spotlight thrown on love by fear brings with it a greater awareness of the necessity of ordering loves. In this way the experience of fear not only uncovers the moral character of the subject but also raises the question of the object's worthiness. Aquinas' discussion of fear thus has more room for moral reflection and holds greater potential for articulating the ways in which fear can be disordered.

Aristotle and Aquinas agree that fear in itself is not always a moral fault, but that it can degenerate into various disordered passions and become a toxic emotion that distorts moral character and numbs moral reflection. When it is functioning well as a healthy and proportionate response to a real threat, then it is a virtue or at least in the service of virtue. In such cases, rightly ordered fear can assist an appropriate response by focusing the mind.[14] Yet where fear grows to dominate the mental landscape, both thought and action suffer. Aquinas thus notes that fear causes us to seek counsel, since we no longer trust our own judgement.[15] Passions distort our perceptions and things seem greater or smaller than they really are. Just as a lover cannot be trusted to avoid exaggerating the merits of the beloved, so someone gripped by a powerful fear may lose a sense of perspective and proportion. It is this very disorientation that is exploited by the tactic of emancipatory shock discussed in Chapter Two, and is part of the reason why the tactic can in some circumstances be perceived as manipulative.

Fear then can focus, illuminate and motivate, or it can warp, occlude and paralyse. Fear's simultaneous capacity to highlight a salient threat and yet distort our grasp on the world highlights one of the key dynamics with which we must wrestle in articulating the use and abuse of fear in ethical thought – a central theme of this thesis. What is it that makes the difference? For Aristotle and Aquinas, the key is avoiding immoderate levels of fear. Yet is it sufficient simply to seek a moderate

[14] Aquinas points out that fear can paralyse the body, "[b]ut on the part of the soul, if the fear be moderate, without much disturbance of the reason, it conduces to working well, in so far as it causes a certain solicitude, and makes a man take counsel and work with greater attention. If, however, fear increases so much as to disturb the reason, it hinders action even on the part of the soul. But of such a fear the Apostle does not speak." Thomas Aquinas, *Summa* I-II.44.4.
[15] Thomas Aquinas, *Summa*, I-II.43.2

fear? Put crudely, is it more the quantity or quality of fear that matters? In the background of this inquiry is my larger question about how the specific contours of climate fears shape the experience and possibilities of the role of fear in ethical deliberation. I have been arguing that more important than the intensity of the experienced fear is the function that fear is called upon to play in the deliberative process.

Love and fear as bases for knowledge

Augustine of Hippo famously argued that only a true lover can know truly, that knowledge requires the participation of the knower.[16] The kind of knowledge that is oriented to action occurs within a matrix of loves, as objects of the world are given the kind of attention that involves affections. In such an account, objective or disinterested knowledge "such as has been cultivated especially within the natural sciences, is not a primordial posture of knowledge, but an artifice, a sophisticated technique of enquiry."[17] Even here, the posture serves a practical goal motivated by desires. As creatures with limited time and a finite attention field, even our attempts at impartial knowing are steps taken towards ends shaped by what we love. Our efforts at learning are directed towards objects we believe are worth the discipline of careful discernment. It is worth noting that this prioritising of the tasks of knowing does not necessarily close to us the possibility of serendipity, the fortuitous (or providential) unintended discovery. These may in turn win our affections and become the focus of further study. We did not intend to find this object, but having stumbled upon it, we discover that it falls within the wider scope of our love and so is worthy of our attention.

Similarly, if fear is a reaction to threatened harm to an object of love, then our fears too may be a pathway to knowledge of the world and of ourselves. Minimally, as we examine our fears we gain a deeper insight into the structure and priorities of our loves. I may find myself fearing the loss of something which I did not realise I loved until it came under threat. In this way, a growing breadth and

[16] This theme in Augustine's thought is explored in Oliver O'Donovan, *Common Objects of Love: Moral Reflection and the Shaping of Community.* The 2001 Stob Lectures. (Grand Rapids, MI: Eerdmans, 2002), 11-16.
[17] Oliver O'Donovan, *Common Objects of Love*, 12.

depth of ecological research is revealing loves we did not know we had. For instance, discovering that oceanic phytoplankton are threatened by warming oceans and yet play such a crucial role in removing atmospheric carbon dioxide and supplying about two thirds of the oxygen we breathe leads us into an unlikely love for a creature that previously occupied the attention of a few specialists.

Yet the relation between fear and knowledge runs deeper too, as the objects of our attention and concern are shaped not only by our desires, but also by our fears. Therefore, just as love structures and enables our knowledge by placing us within a world of good things in which our actions will seek to secure and enjoy those that we deem of greater worth, so our fears also locate and orient us by alerting us to the possibility of losing those good things. Note that fear is not oriented to avoiding things that are themselves evil, implying a form of Manichean moral dualism in which fear would be love's equal and opposite. Instead, fear is the servant of love in the opening up of the world and self.

Perhaps here we can find the proper location for the argument that great fears can distort moral vision and lead to the necessity of counsel, as both Aristotle and Aquinas affirm. If our attention is directed towards the things we love, and if our fears are the mirror of our loves when they are threatened, then a dire threat to something we love can actually cause us to love it more since the fact that it is threatened draws our attention to it. The extra attention received by that object leads to an increase in our understanding of it and may stimulate a corresponding growth in our love for it. Yet more love also means more fear, because we fear the loss of a great love more than the loss of a lesser love. Thus fear can become a potentially vicious feedback, running away with our attention and distorting our affections towards the good thing that has come under threat. The child whose toy is about to be taken by another suddenly discovers a deep attachment to that plaything that was not only revealed by the danger of loss, but was reinforced by it.

Thus, the positive use of fear is in the generation and unveiling of ordinate love, but where it begins to generate inordinate loves through this very drawing of attention to a threatened object, then it is no longer a virtuous guide.

Fearlessness

Since fear is thus capable of a certain kind of honourable service, it does have a limited place as a good and apt emotional response to certain situations. Scott Bader-Saye argues (following Thomas Aquinas, and with apologies to Baz Luhrmann) that a life *without* fear is a life half-lived. "We fear evil because it threatens the things we love – family, friends, community, peace, and life itself. […] Fear is the shadow side of love."[18] Indeed, fear can awaken us to neglected loves. It is often when we experience (or imagine) something lost to us that we begin to appreciate its worth. The possibility of loss is built into a world in which goods are transient. That goods pass away makes them vulnerable to change. Where fragile and ephemeral goods are loved, such love opens up the possibility of grief when they pass away. Fear is anticipated grief over the loss of a love. Lack of fear can thus be a sign of lack of love.

Indeed, Aquinas points out that there are three ways to become fearless: through a lack of love (what Bader-Saye calls "security of detachment"); through a dullness of understanding ("bliss of ignorance"); or through pride of soul ("the pursuit of invulnerability").[19] All three are indicative of different forms of human diminishment. In fact, according to Bader-Saye, "A reckless fearlessness […] does not really overcome fear so much as give in to an uncritical fascination with fear."[20] If our lives are dominated by the obsessive *rejection* of all fear, it is still fear that is the dominant theme, albeit negatively.

There is a strong scriptural theme that affirms the *necessity* of fear in the life of faithful discipleship: "The fear of the LORD is the beginning of wisdom" (Proverbs 1.8). Fear of God is a sign of rightly recognising one's own contingency and moral complicity. Therefore, the problem that fear poses for the possibility of ethical deliberation is not found in the mere presence of fear itself, but in wrongly directed or proportioned fear as a symptom of wrongly directed love.

[18] Bader-Saye, *Following Jesus*, 39-40.
[19] Bader-Saye, *Following Jesus*, 44.
[20] Bader-Saye, *Following Jesus*, 45.

Augustine (and Cicero) on fear

Whereas Aquinas takes Aristotle as his classical point of departure to discuss fear, Augustine selects Cicero to be his foil. According to Augustine, Cicero critiqued the "disruptive emotions" of joy, distress (which Augustine relabels as "grief" in order to distinguish it from physical pain), desire and fear.[21] Each of them results from an error of judgement and threatens the *summum bonum* of the soul's equanimity.

In Book XIV of *City of God*, Augustine takes Cicero's identification of the four basic passions as his starting point for a discussion of godly emotions. While Cicero rejected these as unworthy of the virtuous individual, Augustine's main point is that all these emotions are good insofar as they flow out of a rightly ordered love, and all are ill insofar as they arise from a distorted love.

> And so a rightly directed will is love in a good sense and a perverted will is love in a bad sense. Therefore a love which strains after the possession of the loved object is desire; and the love which possess and enjoys that object is joy. The love that shuns what opposes it is fear, while the love that feels that opposition when it happens is grief.[22]

The four basic passions (or loves) fall out on a simple grid: future or present, attraction or repulsion. Attraction in the present is joy, in the future is desire. Repulsion in the future is fear and in the present, grief. In contrast to Cicero's Stoicism, Augustine argues that there can be good or bad versions of each, depending on whether the love in question is rightly directed or perverted.

Augustine goes on to show how the Stoics (Cicero in particular) argue that for three of these emotions there is a corresponding disposition "in the mind of a wise man",[23] for each *pathos* a parallel *eupathos* that does not undermine the *apatheia* of the wise soul. Desire, joy and fear are each disorders, Cicero argued, and need to be replaced respectively by will, gladness and caution. The difference between the positive and negative term (between the *pathos* and the *eupathos*) in each case was whether they could be held without variation. For example, caution differs from fear in being a settled disposition in the mind of the wise and thus not

[21] Augustine of Hippo, *Concerning The City of God against the Pagans* (trans. Henry Bettenson; London: Penguin, 1984), XIV.8.
[22] Augustine, *City of God* XIV.7.
[23] Augustine, *City of God* XIV.8.

dependent upon changing circumstances, unlike fear, which comes and goes in the presence or absence of a threat. Mental vacillation arising from responding to changing circumstances was thus the cause of all moral fault.

While desire, fear and joy each have a positive (since unchanging) Stoic counterpart, Cicero has no place for any positive disposition corresponding to grief. This is a significant omission, since it reveals a crucial difference between Cicero and Augustine, namely, the place of suffering. For the Stoic, it is impossible for the wise to suffer, since wisdom provides a stability of mind that is the opposite of the perturbations of suffering. In fact, the whole point of wisdom is to free oneself from having to suffer the various passions. Only a fool suffers the fickleness of the passions (desire, joy, fear, grief). If one is wise, then the steady dispositions of will, gladness and caution are unchanging in all circumstances.

For Augustine, the difference in the Christian mindset is eschatology: that the world is open to God's coming future, revealing the present brokenness of all things. In such a world, suffering is not always purely negative, since it reflects an honesty about the imperfections of present experience. Suffering that yearns towards the future is ever pierced by the failures of the today. The famous restlessness of Augustine's heart ("our heart is restless until it rests in you")[24] is not a failure of wisdom or stability, but the proper expression of creation's present fragmentation. Augustine is clear that these disturbing passions are appropriate to us in this present age "while we are in this place of misery."[25] The steadfast impassibility so cherished by the Stoics is for Augustine a future hope, but currently an inhuman impossibility. It is inhuman because not to feel anything means you are not paying attention, or your faculties are not functioning as they ought. It is impossible because no one has so lost touch with their natural feelings as to be entirely impervious to the vicissitudes of life as we presently experience it. To seek impassibility comes from a pathological desire for anaesthesia and blindness.

Therefore, grief is as crucial to a healthy heart as desire, joy or fear because the world is not as it should be.[26] Augustine locates the expression of this present

[24] Augustine, *Confessions*, (trans. Henry Chadwick; Oxford: Oxford University Press, 1991), I.1.
[25] Augustine, *City of God*, XIV.9.
[26] I discuss at greater length in Chapter Six the positive significance for Christian climate ethics of grieving well.

fragmentation in the personal experience of disordered desire, that is, in the corruption of the soul that is both cause and effect of sin. Grief is therefore primarily grief over sin, as the apostle Paul describes in 2 Corinthians 7.8-11. The possibility of grief arises from the tension between what God has promised and our present experience of failure. Something similar is true for all the emotions that depend on this dynamic. Christians are to fear sinning more than any physical pain or loss, to rejoice over a neighbour's repentance, to desire God's promises to reach fruition.[27]

These emotions can be expressions of disordered hearts, where we fear or desire, rejoice or grieve over the wrong things, or in the wrong way. But Augustine is adamant that the faithful Christian life (and therefore, the truly human life) includes each of these emotions in their proper place under the conditions of eschatological promise.

> Among us Christians, on the other hand, the citizens of the Holy City of God, as they live by God's standards in the pilgrimage of this present life, feel fear and desire, pain and gladness in conformity with the holy Scriptures and sound doctrine; and because their love is right, all these feelings are right in them.[28]

Therefore, as with Aquinas, Augustine affirms a right, even necessary, place for healthy fear in the life of the Christian disciple, while acknowledging the possibility and reality of disordered fear. Augustine's particular insight is to prioritise fear of sinning over other fears, so that Christian fear is first about spiritual rather than physical, social or financial harm. While Augustine does not here discuss the aptness of fearing these other forms of harm, it is clear that there is an absolute priority on fearing wrongdoing over all other kinds of danger. He does not rule out healthy secondary fears of suffering harm that is not self-inflicted, or fears for the wellbeing of others, so long as these are in the service of doing good.

This move has very significant implications for fears about climatic destruction. If the *commission* of climate sins is to be feared more than their consequences, then the priority for Christian climate ethics shifts from the threat of economic collapse or social breakdown to the devastation of greed, the poison of

[27] Augustine, *City of God*, XIV.9.
[28] Augustine, *City of God*, XIV.9.

apathy, the inhumanity of lovelessness and whatever other offences lie behind these threats.[29] A Christian response will not major on seeking to motivate through fear of personal, social or national loss, though nor will it ignore or suppress such fears, which are part of a healthy grief and can play an illuminating role in shaping ethical deliberations within our present context.

Furthermore, unlike the apocalyptic disaster narratives explored at the start of this chapter, desperate times do not justify any and all desperate measures. Augustine rejects a thoroughgoing consequentialism in which the end of survival justifies all means. There may well be survival strategies that are even worse than death. To explore this further, let us turn to a more recent thinker who mounts a case for the absolute priority of survival.

In defence of fear – Jonas

Hans Jonas (1903-93) was a German philosopher who spent most of his academic career in New York City. He is best known for three works in different fields of philosophical enquiry. In 1958, he published *The Gnostic Religion*,[30] which was for many years the standard treatment of the historical movement, read through an existentialist lens. He followed this up with *The Phenomenon of Life* (1966),[31] which helped to found one of the main schools of thought in bioethics. Finally, his third and best known major work is *The Imperative of Responsibility: In Search of an Ethics for the Technological Age*,[32] published in German in 1979 and then in the author's own English translation in 1984. The text helped to catalyse the German environmental movement with a philosophical account of the radically new context for human action in an age of advanced technology.

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[29] This alternative focus can be seen in Pope Francis' recent encyclical, which I examine closely in Chapter Six: *Laudato si': On Care for Our Common Home* (The Vatican, 24th May 2015). Online: http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

[30] Hans Jonas, *The Gnostic Religion: The Message of the Alien God and the Beginnings of Christianity*, 2nd revised edition (Boston: Beacon Press, 2001).

[31] Hans Jonas, *The Phenomenon of Life: Toward a Philosophical Biology* (Evanston, IL.: Norwestern University Press, 2001 [1966]).

[32] Jonas, Hans. *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (trans. Hans Jonas, with the collaboration of David Herr; Chicago: University of Chicago, 1984 [1979]).

Jonas had a background in both theology and philosophy and studied under Edmund Husserl, Martin Heidegger, and Rudolf Bultmann. He was lifelong friends with Hannah Arendt. Like Arendt, Jonas was a Jew and fled Germany upon the rise of the Nazi party, spending time in both England and Palestine, where he married. He returned to Germany as a soldier fighting with other German Jews against Hitler. After the war, he discovered his mother had been gassed at Auschwitz and departed Germany for good. He took part in the violent founding of the state of Israel in 1948 and moved to North America in 1950, where he spent the rest of his life.

The unprecedented growth in human agency through rapid technological process brings us, Jonas argues, into a new and dangerous ethical territory. For the first time, our collective impact upon the natural world is sufficient to damage or even destroy the conditions of possibility of our continued flourishing. Because of this changed situation, a new ethics is required. Jonas, like Arendt, has nuclear holocaust on his radar, but unlike Arendt, he put this as secondary, indeed saying that the sheer suicidal insanity required to walk into such an outcome means that "sane fear can avoid [it] with relative ease".[33] Instead, he is far more concerned about the newly emerging ecological threat of crossing vital thresholds, points of no return, beyond which lies not just civilizational collapse, but – Jonas believes – the real possibility of human extinction.

This power to harm ourselves so grievously as to end not simply this or that life, or even this or that society, but *homo sapiens* as such, is for Jonas the single most important development in the history of ethical thought, rendering all traditions that came before it no longer relevant. Jonas argues that hitherto ethical thought was concerned only with immediate, local and contemporaneous interactions between humans. He considers that, until now, "all dealing with the nonhuman world […] was ethically neutral […] [A]ction on nonhuman things did not constitute a sphere of authentic ethical significance".[34] Furthermore, traditional ethics had not really wrestled with obligations towards unseen and unknown people, distant in space or time.[35]

[33] Jonas, *Responsibility*, ix (Preface to the English Edition).
[34] Jonas, *Responsibility*, 4.
[35] Jonas, *Responsibility*, 5.

Of course, Jonas' account of previous ethics is here woefully limited to the particular tradition of Western ethics in modernity. He is either ignorant of or dismisses without comment both a rich array of non-Western ethics as well as pre-modern Western traditions, not least the various Christian traditions, which weave ethical relations to nonhuman creatures into the picture of faithful life from the opening pages of the biblical narratives. Thus, while Jonas may have accurately captured the anthropocentric emphasis of many ethical traditions, he seriously overstates the lack of interest in the more than human world to be found in most ethical traditions. Indeed, even in modern Western thought that had for centuries been dominated by Descartes' account of animals as machines incapable of subjectivity, suffering or moral relationship, some prominent critics still sought to recover earlier traditions repudiating cruelty to other animals.[36]

Despite this blind spot, Jonas is highly sensitive to the ethical implications of the novelty of technologically enhanced human agency. Not that technology has not been expanding human agency for hundreds of thousands of years, but that by the mid-twentieth century, a new threshold had been reached. Now, the capacity for human self-destruction is present in a far more irrevocable and global manner than hitherto. The consequences and implications of human actions extend so much further over the horizon of vision or anticipation than we are able to see. Agency has expanded at a much faster pace than knowledge, such that we simply do not and cannot know what we are doing when we employ technologies capable of altering the fundamental conditions of life on timescales almost beyond our capacity to imagine, let alone prudently consider.[37]

Just as society recognises the added challenges and dangers of driving over walking through regulating the former far more than the latter, so Jonas believes that the very real possibility of human extinction necessitates an entirely new set of priorities in ethical thought and social arrangements.

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[36] For instance, in the nineteenth century William Wilberforce and the Clapham sect had helped to found the Society for the Prevention of Cruelty to Animals, which had become so influential that it later became the Royal Society for the Prevention of Cruelty to Animals. For a detailed and nuanced theological treatment of the significance of animals, see David Clough, *On Animals: Volume I: Systematic Theology* (New York: T&T Clark, 2012).

[37] I pick up the ethical implications of the technologically expanded horizon of human agency for further reflection towards the end of Chapter Five.

Thus, Jonas advocates a new ethic of *responsibility*, by which he means that we are to take total responsibility for the preservation of the human race in an age in which its very survival is threatened by its own technological, economic and biological success. He sums this up in the maxim "Act so that the effects of your action are compatible with the permanence of genuine human life".[38] We can no longer afford the luxury of a voluntaristic individualism that takes no account of the material conditions of human existence. Therefore, he attempts to re-ground ethics in a metaphysics that makes the continued survival of human life the central imperative of all action.

Yet, significantly for my interests in this thesis, Jonas settles on fear as the only tool sufficiently effective to motivate this survival goal.[39] Given that the scope of our agency has been expanding faster than our foresight, we ought to err on the side of anxious caution lest we inadvertently destroy ourselves. Trial and error is no longer a sufficient mode of inquiry once the stakes are raised high enough. Here, Jonas articulates what later became known in environmental and climate ethics as the precautionary principle. When faced with the possibility of irreversible loss of critical features of a habitable planet, err on the side of extreme conservatism. Let the potential loss of the conditions necessary for human life become the primary focus of anxious attention.

For Jonas, this priority of fear is first a heuristic tool for identifying what is really important, since fear is the result of a threatened love. Fear of losing something is often the first way we know that something is good.[40] But this heuristics of fear extends to giving "the prophecy of doom priority over the prophecy of bliss."[41] We are to err on the side of caution in response to our predictions of possible negative outcomes. Indeed, we must cultivate a particular sensitivity to these anxieties, not the personal or immediate fears with which we are most familiar from everyday life, but a long-range societal anxiety about the eventual consequences of our present actions.[42]

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[38] Jonas, *Responsibility*, 11.
[39] Jonas, *Responsibility*, 23.
[40] Jonas, *Responsibility*, 27.
[41] Jonas, *Responsibility*, x.
[42] Jonas, *Responsibility*, 28.

Ultimately, however, Jonas is quite pessimistic about the possibility of individual changes being made rapidly enough to address adequately the pressing need we already face due to the actions we have already committed and continue to perform. He believes that there is an "apocalyptic perspective built into the structure of the present course of humanity", that the incredible success of "scientific-technological-industrial civilisation"[43] will be the cause of its own downfall when the massive population growth it has enabled, multiplied by the enormous per capita consumption it has made possible, reaches the finite limits of the planet's ability to sustain human life.

Jonas is gloomy about the capacity of individuals to adjust their personal lifestyle because he thinks we have become besotted with our technological powers. Indeed, he even speaks of a second-order power that power now has over us, by which he means that our technological achievements are no longer merely tools serving human ends, but have taken on a kind of life of their own and now shape the very conception of our ends.

Due to this influence of technology on our capacity to think of a life less reliant on our technological powers, individuals will be unable to make changes rapidly enough to avoid catastrophic consequences. The emotional hold that our technological powers have over our thinking "can only be overcome by a further degree of power itself, not by a quietist renunciation of power."[44] Although powerful to change the external world, technological power has undermined the power of self-control until its reign can only be countered with the stronger force of the state.[45] Therefore, the only hope of effecting the necessary change to preserve society is through "a well-intentioned, well-informed tyranny possessed of the right insights."[46] "Such measures are precisely what the threatening future now demands and will increasingly demand as we go on."[47]

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[43] Jonas, *Responsibility*, 140.
[44] Jonas, *Responsibility*, 141.
[45] "From which direction can we expect this third-degree power [i.e. power over the power of those exercising the power to control] which reinstates man – and just in time – in the control of his power and breaks its tyrannical automatism? It must, in the nature of the problem, emanate from society, as no private insight, responsibility, or fear can measure up to the task. […] This much is clear: only a maximum of politically imposed social discipline can ensure the subordination of present advantages to the long-term exigencies of the future." Jonas, *Responsibility*, 142.
[46] Jonas, *Responsibility*, 147.
[47] Jonas, *Responsibility*, 146-47.

Hans Jonas is thus the first and most influential eco-fascist. Recalling the discussion of fascist logic at the outset of the chapter, we can see that for him too action taken to secure survival trumps all other ethical considerations, and that only a sufficiently unified and powerful state is capable of effecting this absolute necessity in the face of impersonal and seemingly inexorable forces of complete destruction. The overriding imperative of survival renders irrelevant all other considerations, including longstanding liberal political convictions about civil liberties, private property and so on. Jonas is thus a survivalist. He may not build a bunker and stock it with tins and ammunition, but he nonetheless brings a similar outlook of deep anxiety. Indeed, arguably he takes it further, calculating that a shotgun and water purification tablets are woefully inadequate survival tools in our context. Instead, he raises the stakes by calling for nothing less than a powerful and ruthless state able and willing to enforce the acts needed to prevent complete catastrophe.[48]

Jonas's project has some strong affinities with that of Thomas Hobbes.[49] The fundamental human affect is fear; survival is the primary goal of politics; and an overwhelmingly powerful state is required to prevent us from collective self-destruction. For Hobbes, however, the threat arises from the direct assault of my unrestrained neighbour in the state of nature and the survival guaranteed by the sovereignty of the state is my own. In contrast, for Jonas, the real threat only presents itself in civilised (industrial) society through the indirect assault of my neighbour, and the survival that the sovereignty of the state guarantees is not my own, but humanity's. Hobbes' war of all against all is really of each against any. It is Jonas who conceives of the everyday actions of modern society as an undeclared war of all upon all. Yet, just as with Hobbes, only the greater force of the state can bring any chance of a ceasefire.

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[48] Christian Parenti, *Tropic of Chaos: Climate Change and the New Geography of Violence (New York: Nation Books, 2011), 9-18. Arguably, recent calls for "Ecomodernism" reflect a new brand of eco-fascism. In short, ecomodernists argue that the human future (and humans are the focus) lies in severely re-engineering society into broadly two categories: compulsory urban living in large cities and isolated agricultural areas for industry. As Josh Halpern has suggested, this would both require and entail a greater centralisation of power, as well as engendering a "social monoculture". See Josh Halpern, "The Brave New World of Ecomodernism" (The Guardian, 20 October 2015). Online: https://www.theguardian.com/environment/climate-consensus-97-per-cent/2015/oct/20/the-brave-new-world-of-ecomodernism accessed August 2016.*

[49] Thomas Hobbes, *Leviathan: or, The Matter, Form and Power of a Commonwealth Ecclesiastical and Civil* (London: Dent, 1914 [1651]).

Such ideas are not idle speculation or merely theoretical. Already, the visible and anticipated effects of climate change are apparently leading some to prepare for significant expansions of state power. In *Tropic of Chaos: Climate Change and the New Geography of Violence*, Christian Parenti argues that ruthless calculations about the geopolitically disruptive effects of climate change (especially through displacing hundreds of millions in the tropics) have already become a significant component of US government priorities and planning. Parenti sees a growing trend towards what he calls "climate fascism":

> Nations with the resources to do so may build virtual fortresses around their countries, preserving resources for themselves. […] National security intellectuals, in and out of government, have started to imagine a militarized geography of social breakdown on a global scale.[50]

This politics of "exclusion, segregation, and repression" involves a strategy of "walls, guns, barbed wire, armed aerial drones, [and] permanently deployed mercenaries."[51] In short, Parenti believes that powerful nations with the resources to do so, are readying themselves to be an "armed lifeboat".[52]

Here though we can begin to raise some critical questions. For example, why should we think that the state would exert a greater (or more effective) power against what Jonas calls "the power of power" (that is, the powerful threat represented by technologically enhanced human agency) than, say, a converted heart?[53] If the problem is not simply power, but the power of power, then the power required to overcome this insatiable lust is not just an effective power, but an *affective* power. Renunciation of greater and greater economic and technological power is not necessarily quietist, despite Jonas's dismissal of it as such.[54] It is quite possible to seek actively and deliberately liberation from the power of power, to live a life free from its sway and lure. Historically, a tyrannical state has not necessarily been the most effective means of shaping people to live such a life.

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[50] Parenti, *Tropic of Chaos, 13-15.*
[51] Parenti, *Tropic of Chaos, 11, 18.*
[52] Parenti, *Tropic of Chaos, 226.*
[53] Jonas, *Responsibility*, 142.
[54] Jonas, *Responsibility*, 141.

We might also ask whether it is worth it? Does the end of ensuring the survival of humanity justify all means, up to and including overwhelming state force if necessary? We shall turn in the next two chapters to consider the reasons Christian ethical thought might relativise the absolute priority of survival and explore how it opens up space for the possibility of other responses.

Glimpsing ahead to some of these theological resources, Jesus said, "For those who want to save their life will lose it, and those who lose their life for my sake, will find it" (Matthew 16.25 NRSV). To seek to escape the lure of ever increasing power by a renewed effort to dominate others is doomed to further diminish life.[55] Jesus is here sharing the fruit of his earlier refusal of the satanic temptation. He had been promised that all the nations of the earth would bow down to him, if only he would bow down to Satan (Matthew 4.8-10). If he would only seek more power, if only he would worship at the altar of power, then power would indeed come to him (he would rule all the nations), but at the cost of his own mission and identity. If he had sought to secure his identity through accepting power from the Evil One, he would have lost his very reason to live. This passage brings out the claim that there are some things of greater worth than survival, both individually – which Jonas is quick to recognise – but also, equally, *collectively*. Nations and civilizations may perish. Nations are only intermediate goods and their survival is not an absolute good to which all other values can be sacrificed.[56]

The saying from Jesus suggests that preserving our existence is not ultimately in our hands. Notice that for Jonas it is *we* who must preserve the human race – he spends chapters making a case for this – but when he comes to addressing the threat, he shifts to speaking of civilizations being destroyed, rather than the entire race. He

[55] The losing or saving of one's life has a strong eschatological note, as Leon Morris argues; *The Gospel According to Matthew* (Grand Rapids, MI.: IVP, 1992), 431-32. Nevertheless, this does not rule out reading this verse with implications for more proximate experiences of flourishing or diminishing. See Warren Carter, *Matthew and the Margins: A Sociopolitical and Religious Reading* (Maryknoll, NY.: Orbis, 2000), 344-45.

[56] That the revelation of the universal Lordship of Christ has relativised the necessity of political authority securing national continuity is a major part of the argument in Oliver O'Donovan, *The Desire of the Nations: Rediscovering the Roots of Political Theology* (Cambridge: Cambridge University Press, 1996) 151, 241: "No government has a right to exist, no nation has a right to defend itself. Such claims are overwhelmed by the immediate claim of the Kingdom. There remains simply the rump of political authority which cannot be dispensed with yet, the exercise of judgment"; "On all sides pundits proclaim that the nation-state is in trouble. The truth is, it has been in trouble ever since Christ rose from the dead. The challenge issued to given, a priori political identities has been a persistent *Leitmotiv* of Christian thought."

speaks of a scenario of every one for themselves, and alludes to the survivors' near impossible task of somehow rebuilding: "How after this a remnant of mankind will start afresh on a ravaged earth defies all speculation."[57] It is easy to miss the subtle shift but this is in fact a fundamentally different scenario to the apocalyptic total destruction of humanity.

To put this difference in a nutshell: the end of the world as we know it is not necessarily the end of the world. To explain what I mean, it is necessary to distinguish eschatology and apocalyptic, and between scriptural apocalypse and popular uses of the term apocalyptic.

Apocalypse, Apocalyptic and Eschatology

The root meaning of apocalypse is revelation. The association with dramatic world-ending catastrophe in popular use of the term "apocalyptic"[58] comes from the final book of the Christian scriptures, in which a string of vivid cosmic disasters are recounted. Yet, as Richard Bauckham has argued, the point of the text is not to indulge in lurid speculation of how and when such catastrophes might occur, but to train the imagination of its readers for a different vision of their present suffering than mere catastrophe that needs to be survived.[59]

On the contrary, reference to the apocalypse relativizes survival as goal. Apocalypse is the revealing of what is truly going on behind the scenes, as it were, the spiritual meaning of otherwise opaque and threatening experiences. So the revealing of the victory of God in Jesus (the major theme of the book of Revelation) points not to a panicked desperation of utilising all means necessary to avert ultimate catastrophe, but actually opens up history, freeing historical decisions from having to secure the ongoing survival of humanity and our world.

If we make this distinction, we can resist the notion that just because the popular sense of the word is frequently used then the genuinely catastrophic threats of climate change must have eschatological significance in Christian theology. Just because we face the end of the world as we know it due to the real and present

[57] Jonas, *Responsibility*, 141.
[58] This is the sense of the word that I have been using so far in this chapter.
[59] Richard Bauckham, *The Theology of the Book of Revelation* (Cambridge: Cambridge University Press, 1993). See also Wes Howard-Brook and Anthony Gwyther, *Unveiling Empire: Reading Revelation Then and Now* (Maryknoll, NY.: Orbis, 1999), 39-44.

dangers of anthropogenic warming, this does not necessarily mean we face the absolute end of the world in a theological sense.

However severe for human society and ecological flourishing the outcomes turn out to be over the coming decades and centuries, might it not be appropriate to remain somewhat agnostic about the eschatological significance of rising temperatures? Even a massive demographic decline and civilisational collapse would still presumably be followed by some kind of ongoing human existence. That is, massive historical discontinuities are nonetheless still historical. The end of the world as we know it is not necessarily the end of the world.[60] In making this suggestion I am seeking to bracket the question of the relation between ecological catastrophe and the end of all things. Any orthodox theological doctrine of eschatology has nearly always left open a reverent agnosticism about the precise shape of the future, while maintaining a hope for God's ultimate triumph over the forces of destruction, a trust in divine commitment to the ultimate vindication of humanity and creation, which is not thwarted by death or extinction, and an expectation of Christ's revealed presence to judge and renew all things.

It is thus crucial that Christian theological ethics resists the temptation to make climate change one of the horsemen of the Apocalypse, to assume that just because the climate threat is of a certain scale, that therefore these matters are necessarily directly relevant to ultimate Christian hopes.

That said, it is still valuable to pursue the claim that climate change specifically and contemporary ecological crises more generally represent something genuinely novel in human experience, as I argued in Chapters One and Three. This is not in order to justify a state of moral exception, where climate ethics swallows the entire field of ethics. But this thesis has been arguing that our novel predicament represents not just a fresh set of ethical questions to consider, but also a new form of moral hazard worthy of further attention, lest climate fears squeeze out the space for patient deliberation entirely.

Aligning our climate fears with ultimate Christian hopes could lead to problematic stances, ones that mirror Jonas's argument. Such fear may translate into

[60] Even the extinction of *homo sapiens* need not mean the end of the story of God's creation, which had a meaning and purpose and value prior to human beings.

a proximate expectation that God will rescue us from our self-destruction. Alternatively, if associated with an ultimate end, such fear may paralyse and prevent determinate action or else lead us to cling to the idea that we must, at all costs, rescue ourselves through the exercise of our own practical reason.

Indeed, with respect to the rescue response, one might point to the gospel proclamation: "do not be anxious about tomorrow" (Matthew 6.34). This ought to be given much weight in the face of threats that may leave many people without food or shelter. Yet denouncing fear too quickly fails to understand how, as Aquinas and Augustine argued, fear can be the servant of love. Fear is useful insofar as it gives us an initial motive to explore possible threats. We fear the loss of that which we love and so the emergence of a fear is a chance to reflect upon the objects of our love and their proper ordering. We may discover that some of our fears are expressions of unbelief or idolatry. But feeling the urgency of a genuine threat to something that ought to be loved deeply (my neighbour, for instance) is a gift.

Of course, such fears can easily paralyse or distract, leading into paths that are dead ends for moral reflection and action since they close down the self in patterns of self-protection. But fear, when transformed by the cross and resurrection of Christ, becomes an opening up to my neighbours in deep concern for their plight, an honest and affective attentiveness to the threats they face, indeed, which we face together.

Conclusion

While it is possible to share Jonas's pessimism about the possibility of endless growth in consumption by a growing world population, as well as his judgement that we have already passed the point at which human society as it currently stands is sustainable, and that it is likely that unless there is a voluntary radical shift there will be an involuntary one, I do not share his proposed solution.

Jonas' apocalyptic perspective ends up flattening the moral landscape. If the object of fear is the end of the world in the annihilation of the human race, then this absolute catastrophe generates a fear that is likewise absolute, and which trumps all other considerations, flattening the ethical landscape and draining it of colour. All that is left is survival or doom. In such a world, the threat also becomes stripped of

humanity, appearing as an almost inscrutable horror and so implicitly justifying the application of overwhelming violence, as we discussed near the start of this chapter. So while Jonas' use of fear is ultimately, I have been arguing, a dead end, it is one that has helpfully illustrated the political correlate of where apocalyptic fears can easily lead.

By contrast, in the discussion above concerning Augustine and Aquinas, we outlined a couple of Christian engagements with fear from earlier eras. In them, the beginnings of a more constructive role for fear has begun to emerge, where the absolutising temptation of apocalypticism can be resisted while still allowing fear to have its place.

Having brought the shape of Jonas' use of fear into sharp relief and argued against its fascist and simplifying tendencies, I turn now to delve further into the Christian resources that thus far have only been sketched. I will be defending my contention that within this tradition we might find an opening for ethical deliberation that enables a fundamentally difference space of response, a space beyond desperation, with a broader horizon of possibility and more room for creativity.

If survival is no longer an absolute priority, then the considerations of further goods can emerge. Avoiding framing climate change through the lens of apocalyptic expectations of the end of the world means that the ethical landscape can retain more texture and nuance. A complex set of interconnected loves can guide ethical deliberations rather than everything being simplified down to the matter of securing the conditions of personal or societal survival.

Refusing an apocalyptic frame also allows a more interesting role for fear. Rather than fear making absolute demands, or simply being relegated to a dangerous distraction, we need an identity and stance that takes seriously the way fears illuminate our situation but without allowing them to dictate our response. Articulating such an identity and stance with reference to Christian scriptural and theological resources is the primary goal of the next two chapters.

Chapter Five

The End of Fear

Hans Urs von Balthasar and Anxiety Redeemed[1]

The first three chapters of this thesis have examined something of the nature, analogues and novelties of climate fears. The fourth explored one possible, though inadequate, path of response. This fifth chapter is the conceptual heart of the thesis, attempting a constructive account of faithful fear. How can climate fears positively contribute to – rather than distract or distort – ethical deliberation and action, especially in an increasingly disrupted climate? In the face of a highly complex, quickly escalating, significantly irreversible and possibly insuperable climate crisis, it is vital to locate spiritual and theological resources that can sustain honest and careful ethical thought against the corrosive effects of climate fears. One possible source can be found in the work of Hans Urs von Balthasar, whose short book on anxiety, *Der Christ und die Angst* ("The Christian and Anxiety")[2], while not specifically addressing climate fears, nonetheless offers a very useful and theologically textured account of anxiety. Taking Balthasar's short text as a dialogue partner, this chapter will explore healthy and unhealthy modes of alarm. Balthasar argues that Christ's own anxiety during his passion liberates believers from certain kinds of fear, and then opens the creative possibility of entering into the fears of one's neighbour as an expression of love.

Der Christ und die Angst is a creative, if relatively brief, study into the theological meaning of anxiety (*Angst*).[3] It was published in 1952, soon after a tumultuous period both in Balthasar's personal life and for members of the

[1] Portions of this chapter incorporate adapted material from two pieces of previously published work. An earlier version of the discussion of von Balthasar and anxiety appeared in Byron Smith, "Doom, Gloom and Empty Tombs: Climate Change and Fear" in *Studies in Christian Ethics* 24.1 (2011): 77-91. The concluding sections of this chapter are adapted from sections of Byron Smith, "Green Future: Theology and the Future of the Earth" in *Theology and the Future: Evangelical Assertions and Explorations* (eds. Trevor Cairney and David Starling; London: T&T Clark, 2014), 231-46.

[2] Hans Urs von Balthasar, *Anxiety and the Christian* (trans. Dennis D. Martin and Michel J. Miller; San Francisco: Ignatius Press, 2000 [1952]). Hereafter "CA" and page references in main text.

[3] *Angst* has a broader semantic range than 'anxiety' and does not always imply a future orientation, perhaps sometimes meaning something closer to 'anguish'. The temporal aspect of Balthasar's treatment will be considered below. It is worth noting that from the opening line of the first chapter, Balthasar regularly places *Angst* in parallel with *Furcht* (CA 39) and throughout the work he does not observe Kierkegaard's distinction between fear (which has a definite object) and anxiety (which does not).

Ressourcement or *Nouvelle Théologie* movement within the Catholic church. In February 1950, feeling unsupported in his perceived mission, Balthasar had decided not to renew his Jesuit vows and so was left without a position, residence or income. Having left an order, he also received a teaching ban from the Catholic Congregation for Seminaries and Universities. In August of that year, Pius XII's encyclical *Humani Generis* attacked the ideas of the *Nouvelle Théologie* movement with which Balthasar was linked, warning of "false opinions that threaten to undermine the foundations of Catholic doctrine."

Throughout the work, this context is rarely mentioned but ever present. The text refers once briefly to "the current controversies inside and outside the Church, which have been driven by partisan animosity" and which he believed required "some measure of clarity and calm" (CA 34). The final chapter concludes with a short ecclesiological discussion, contending that "[t]o be a Christian in the Church requires courage" (CA 153), something he had been learning through personal experience. The kind of courage Balthasar had in mind was a Christian fortitude that "endures every situation, every attack, every anxiety", not from a superabundance of personal strength, but through the courage to remain defenceless and receptive to the Word of God. Such openness to God entails openness to the Church, which Balthasar refers to as "ecclesial obedience" (CA 155).

But the text is far more than an attempt to work through personal issues or mount a defence of his own defencelessness. It is a creative attempt to think scripturally, theologically and philosophically about the phenomenon of human anxiety. Balthasar is suspicious of claims that this is a novel phenomenon, only recently discovered or conjured in the modern consciousness, though he does acknowledge that the conditions of modernity have brought it into sharper focus and that there is a particularly modern shape to contemporary anxieties, while denying this manifestation any defining significance. He wishes to bring a thoroughly scriptural perspective to the subject, believing that only in that way can the true nature and meaning of anxiety be uncovered.

After a short methodological introduction, there are three main chapters. The first, "God's Word and Anxiety", is a treatment of the variety of relevant scriptural references. The second, "The Christian and Anxiety", contains theological reflections

on that material and is the heart of the book. The third, "The Essence of Anxiety", moves on to attempt to articulate philosophically the anthropological conditions of possibility for the preceding account.

Balthasar's christological method

For Balthasar, the deepest truth of anxiety is *christological*. The Word of God took on flesh and made his dwelling amongst us, sharing all our trials and weaknesses, including anxiety. In Christ's anxious prayers in Gethsemane, anxiety's nature is revealed and redeemed; through the anxiety of Christ, the heart of God is exposed. By sharing our predicament, and bringing God's exposed heart to it, Christ's redemptive work extends to every aspect of human life, once again, including anxiety, which can now play a new and positive role as part of Christian faith, hope and love. Thus, his account is also deeply soteriological, moving anxiety out from a minor role in a discussion of the virtues and bringing it more directly into contact with a range of doctrines.

From the opening line and throughout the text, Balthasar's primary interlocutor is Søren Kierkegaard, especially *The Concept of Anxiety*,[4] which he nominates as "the first and last attempt to come to terms theologically with his subject" (CA 31). For all his respect for the sensitivity of the Dane's dialectical skills, Balthasar wishes to diverge from his account of *Angst* (Danish *Angest*) in important ways. Kierkegaard's treatment is deliberately pre-theological, and for Balthasar, this is the problem that fatally misdirects his analysis. He writes psychologically and with little explicit reference to Christ or salvation history, "[a]s a result, anxiety remains for him a matter of the finite mind horrified by its own limitlessness," (CA 32) rather than the full depth of its Christian meaning being available. Furthermore, Kierkegaard's method leads him implicitly to conflate fallenness and finitude (a move that Heidegger would later make explicit), and so ground a pernicious anxiety in the very conditions of our creaturely existence. *The Concept of Anxiety*, by giving precedence to the secular categories of philosophy and psychology, helped to seed both existentialism and psychoanalysis via Heidegger

[4] Søren Kierkegaard, *The Concept of Anxiety: A Simple Psychologically Orienting Deliberation on the Dogmatic Issue of Hereditary Sin*. (ed. and trans. Reidar Thomte; Princeton: Princeton University Press, 1980 [1844]).

and Freud. But according to Balthasar, it also entrenched a number of misunderstandings about anxiety, including giving it an inflated place in understanding the world. In this chapter I will not enter into debate about the adequacy of Balthasar's interpretation of Kierkegaard (or rather, to be more precise, it is the argument of his pseudonym, Vigilius Haufniensis, under whose name *The Concept of Anxiety* was published). No doubt Kierkegaard scholars may wish to contest Balthasar's reading but my focus is on Balthasar's own argument and in this chapter I work with the Kierkegaard he uses as a foil to build that argument.

Thus, over against neo-scholasticism, Balthasar acknowledges that anxiety is indeed an important phenomenon. By building on the legacy of Kierkegaard, secular disciplines have helped bring a perennial aspect of human existence into new focus. Yet over against existentialism and psychoanalysis (and so ultimately over against Kierkegaard), Balthasar denies that the true nature of anxiety is understood secularly, or that one needs to experience such anxiety from the inside in order to either understand or overcome it. Thus, the *Zeitgeist* can be a good servant in highlighting the issue, but it is a bad master, and its blinding effects require careful attention to the scriptures in order to obtain critical distance. But neither can it be simply ignored lest Christians slide into a serene irrelevancy. The crucial challenge in speaking to a culture gripped by anxiety is thus to have something substantial to say about anxiety without compounding the problem by cementing its centrality. For Balthasar, this path can only be navigated via careful attention to the scriptural witness in order to gain sufficient critical distance from contemporary prejudices and hubris.

Modern anxiety: An excursus

Balthasar concurs that this is the age of anxiety, though he calls it "greatly inflated" and insists that it is "only *one* expression of the ever-present anxiety in men" (CA 36). Yet when he comes to account for what is distinct about modern anxiety, he outlines its character in this way:

> The particular case is the anxiety of a modern man in a mechanized world where colossal machinery inexorably swallows up the frail human body and mind only to refashion it into a cog in the machinery – machinery that thus becomes

> as meaningless as it is all-consuming – the anxiety of man in a civilization that has destroyed all humane sense of proportion and that can no longer keep its own demons at bay. (CA 35-36)

The modern world is characterised by mechanisation, the replacement of human labour by machines. The goal is efficiency; a machine can do our work faster, more accurately, for longer hours and more cheaply. Greater efficiency means greater production; greater production means more goods to consume and more time to consume them. Yet the actual effect of these machines is not to liberate humans from their work, but to enact a new and greater imprisonment. Rather than the machines enabling an increase in human consumption, the machines consume their human workers, remaking them in their own ruthless, mindless, repetitive, manipulative image. But if humans build machines that exist to turn humans into machines, then the use of machinery becomes another meaningless absurdity. The anxiety arises not simply from this process, but from the scale of the process, the loss of a humane sense of proportion that colossal machinery brings, making the march of meaninglessness appear relentless and humanity passive victims of their own unstoppable creatures. Hoping to become godlike in our reach, we unleashed demonic and destructive forces. Hoping to inscribe our meaning onto the world through fashioning ever more objects, we generate a meaningless cacophony.

These machines are actual physical pieces of hardware, but once in existence, they require large numbers of people to operate, who in turn require complex specialisation and co-ordination. The machine quickly also becomes the intellectual model for how to organise the workforce that runs the apparatus. So not only are the workers turned into cogs, fitting their motions to those of the tangible device, but they also become cogs in a corporate machine that is as heartless and relentlessly efficient as the hardware they operate. This ideational machine is a system that treats workers like exchangeable cogs in a complex and highly co-ordinated process of production. Just like the physical contraptions, it quickly loses a humane sense of proportion in the pursuit of maximising output. Acting in this way, the corporate machine consumes those who operate it, until it is operating them.

Balthasar does not develop this account any further than the above quote in the introduction, but the impotence it illustrates resonates with the impotence he later

describes as cause and effect of the darkness of anxiety. This image can easily be extended to encompass climate concerns. Unable to effect things on a human scale, workers become cogs in colossal machines, trapped in monstrously oversized causal chains whose ultimate effects are inscrutable and yet deeply menacing. Thus, they perpetuate the contraption's (and corporation's) operation without ever quite knowing how or whether to sabotage it, generating guilt all the while for their complicity.[5] The very mechanisation that promised to liberate human labour from toil instead destroys the meaningfulness of the actions that are thereby enabled.

Balthasar's scriptural grounding of anxiety

The scriptural testimony is rich and varied in its portrayal of fear and anxiety. Balthasar notes that anxiety is commonly associated with suffering and death, and that each of these three are ubiquitous throughout the sacred texts, which, unlike most philosophies of practical wisdom, are not aimed at coming to terms with them. Anxiety is neither glossed over, nor treated as the central concern. Balthasar assumes substantial continuity between the anxiety and fears mentioned by the ancient scriptures and anxiety today. Although, as noted above, he is not insensitive to the particular form they take, he denies any deep qualitative difference, claiming that anxiety is "a fundamental given of human existence", presumably like suffering and death (CA 40). God has plans for anxiety that are not apparent from merely looking at the structure of the experience or at the anxious mind or soul.

This fundamental given is common to all and arises from the finitude of created and mortal life. Yet it quickly turns out to be a purely formal possibility; there is, in a fallen world, no such thing as neutral or natural anxiety. In the Old Testament all anxiety is divided in two by the subject's orientation towards or away from God:

> [T]his neutrality is immediately displaced, down to the very roots of existence, by the difference between this turning

[5] There are some interesting parallels between this passage and Hannah Arendt's critique of the fall of *homo faber* into meaninglessness in *The Human Condition*. "Man, insofar as he is *homo faber*, instrumentalizes, and his instrumentalization implies a degradation of all things into means, their loss of intrinsic and independent value, so that eventually not only the objects of fabrication but also the earth […] lose their value." Hannah Arendt, *The Human Condition* (2nd ed.; Chicago: University of Chicago Press, 1998 [1958]), 156.

> toward and this turning away. For these two orientations respectively colour existential anxiety at its very core with contrasting hues, so much so that the minimum of commonality that permitted us to speak of a universal phenomenon of anxiety, in both the good and the wicked, vanishes and is subsumed into the contrast that divides the anxiety of the wicked from the behaviour and the attitude of the good. (CA 43-44)

The quality of anxiety is determined by one's most basic theological, existential stance. The anxiety of the good and the wicked are diametrically opposed. Considering first the plight of the wicked under the Old Testament, Balthasar spends some time discussing chapter seventeen of the Book of Wisdom, in which the plague of darkness during the Exodus becomes the subject of an extended meditation on the nature of the anxiety of the wicked, who are plunged by their anxiety into darkness.

> This is a portrait of total anxiety […]. The night has an inextricably reciprocal relationship with the anxiety it causes, in that it simultaneously effects, graphically portrays, and ultimately is caused by that which it is meant to punish, and the self-torment of anxiety is greater than the darkness itself of Hades. The main effect of darkness is that it separates, isolates, makes lonely, incarcerates, shackles, that it ruptures every communication from one man to another, and this it does effortlessly with a single chain to which all those isolated are bound. […] The wicked are always trying to evade the light of the all-seeing God, so that light itself becomes for them an object of anxiety. (CA 47-48)

This is perhaps Balthasar's most important and consistent image throughout the text: the anxiety of the wicked is associated with darkness, a fleeing from or being cut off from the light of God's grace and revelation. The darkness arises from Sheol, and is the symbol of death, and the forgetfulness and invisibility associated with it. The darkness is both sent by God as a punishment for wickedness, and is a self-willed, even a self-inflicted blindness. Indeed, anxiety makes one not want to see. By losing the light, the wicked lose touch with reality and enter a shadow world filled with phantoms of their own anxious imagination in which they are either "driven" or "paralysed". Unable to act since unable to know more than shadows, the wicked find that the anxiety that was founded in mortality and the fear of death, and compounded by guilt that did not want to see, has now resulted in an anxiety over meaninglessness as actions become disconnected from their intended goals. Once death has become

the horizon of reference in the anxious mind, the goodness and significance of life is swallowed up by guilt and fear.

Considered in itself, the night is "really powerless", but the wicked surrender to it and so are weakened to the point of refusing the help available. This help is reason, the insight into the situation that is able to calmly survey a threat without exaggeration or denial. But it is their own guilt that prevents them from looking and so their distressed conscience leads to willed ignorance and an associated enervation of action. By rejecting the assistance that reason could offer, they are left helpless, even though one of the outcomes of reason is an acknowledgement that one is dependent and cannot act without help. There is no heroic foundation of the self outside the sphere of dependency, or the construction of a self without needs. Instead, according to Wisdom, it is reason, courage and hope that look for help and in doing so experience a restoration of agency. Reason is thus both the recognition of need and the turning towards receiving help. Without this, agency is diminished or lost and fear becomes blind. It is a vicious cycle in which deprivation of light leads to anxiety, anxiety to sin and guilt, which in turns feeds more anxiety and retreats from the only possible escape routes, not wanting to be exposed by the light.

This is a compelling and rich vein of imagery that enables Balthasar to relate different kinds of anxiety in a way that observes their self-reinforcing tendencies. Yet like all images it has its limits. In this case, anxiety feeds not simply on pure darkness, but on half-truths, glimpsed fragments taken out of context, dim shadows of reality. Total ignorance of a possible threat can indeed be bliss if a half-aware anxiety is the alternative. Indeed, when we consider climate threats, by their nature they are not always obvious or imminent. The damage can be done across great geographical or temporal distances, meaning that it is quite possible for people to remain unaware. It is not until there is the some level of perceived threat, however distorted, that anxiety gains a foothold. A further issue with the image is related. If anxiety hides in the shadows and half-light, then the appearance of light and knowledge ought to banish it. But sometimes growth in knowledge only feeds anxiety further. So it must be clarified that the light is not knowledge or awareness of the world, but is the light of God's grace and joy, without which even true knowledge can be a burden causing more worry.

Given the range of material he covers, it is somewhat odd that Balthasar does not mention the first instance of fear in the scriptures in Genesis 3, where the man and his wife hide, as they were afraid of their nakedness before God. This passage not only corroborates Balthasar's primary image (hiding is an attempt to escape the radius of God's light, to flee into darkness out of anxiety over divine judgement and death), but even extends it, providing textual support for a position that Balthasar holds for theological reasons: anxiety is associated with falling, not a function simply of finitude. Although the third chapter contains interaction with Kierkegaard's account of Adam's anxiety that led him to the point of sinning, the fearful reaction of flight from God is overlooked.

On the other hand, the anxiety of the good is entirely different. "For *the good*, a mighty and categorical No stands in opposition to this anxiety of the wicked. They are absolutely forbidden to know this fear. They should not, they need not enter into it. Already the Old Covenant resounds with the cry: 'Fear not!' (Isaiah 41.10) 'Fear not, for I have redeemed you' (Isaiah 43.1). Indeed, complete, constant anxiety has as its extreme antithesis the constant absence of anxiety in the good." (CA 53). Yet the very frequency and urgency with which the prohibition is made is testimony to an anxiety amongst the good. The command is not enough to secure its own observance, because it takes the form of an as-yet-unfulfilled promise. The anticipation of an unrealised future opens a space in which anxiety can grow as the promise raises expectations and engages desire. Having had hopes raised, the possibility of missing out arises and with it, anxiety. Yet the insistence is made that to be anxious is not to believe. This forms its own vicious spiral, in which anxiety threatens, even opposes, belief in the promise, yet loss of belief threatens one's eligibility of receiving the promise. The promise once made, however, cannot be ignored and so the possibility of missing out grows in proportion to one's anxiety and one's anxiety grows in proportion to the thought that the promise may be invalidated by one's unbelief. The good Israelite of the Old Covenant is thus anxious about the very promise of God that one can be freed from anxiety. Even the manifestation of God in a theophany only produces even more intense anxiety as the guilt of even the good is provoked by the holiness of God.

> As a result, the actual story of God's dealings with his people is played out, not on the calm plain of freedom from anxiety, as was to be expected, but rather at its edges: where God, threatening with all the means afforded by anxiety, compels man into freedom from anxiety; where man wavers in fear, wondering whether God will yet again acknowledge and keep in force the covenant that has been broken a thousand times; where the people anxiously fight their way out of anxiety and into freedom from anxiety. […] There is the command to advance into freedom from anxiety but also the dire warning not to turn back because that would entail all manner of anxiety. (CA 58)

Thus the very command to "fear not" itself produces anxiety lest it not be followed. In Deuteronomy 28, the threat that Israel might receive the plagues of the Egyptians if they should stray from Yahweh means that when some earthly distress arises there is the possibility that this could be the threatened curse starting to materialise, which, of course, only multiples anxiety. In the Old Testament the relationship with God consists in the struggle to believe the promise of freedom from anxiety, with the stakes being so high that they cause anxiety. This situation reaches its apotheosis in the person and plight of Job. Nonetheless, these two diametrically opposed anxieties, the one futile and ludicrous, the other an earnest fear of God, are not in balance or tension. That would be an oversimplification of the drama. Old Covenant anxiety is "a multivalent, malleable phenomenon, which, in the hand of God, is capable of serving the most varied purposes." (CA 68)

When we turn to the New Testament, Balthasar argues that we find there both an intensification of the same dual structure, and something genuinely new. The same two kinds of anxiety are not negated in a New Covenant, but are only heightened. Whereas the eleventh chapter of Wisdom records God's leniency in not sending anything more threatening than locusts and vermin, the ninth chapter of Revelation takes the theme of terrifying beasts punishing the wicked and heightens it "to an unimaginable degree" (CA 70). That the anxiety associated with unbelief only grows in the New Testament means that those who refuse God's light face darkness and terror. There may well be bravery; there may be echoes of wisdom; there may be heroic stands against overwhelming odds and a tragic struggle against the apparently inexorable momentum of human self-destruction. By God's common grace, all these may exist and even thrive for a time here and there. Insofar as a measure of wisdom,

courage and honesty remains outside the church, so the believing community is reminded that they have no monopoly on the work of the Spirit or on the virtues required to avoid a paralysis of thought and action. Yet the tragic note of such virtue is found in both an inner and outer thwarting; it is frustrated externally by unrelentingly unredeemed structures of human society and inwardly by incoherence and unresolved guilt. Even at their most noble, such responses fall under divine judgement that both consists of and results in anxiety. It is only when that anxiety is displaced and redeemed by the anxiety of Christ that it can become fruitful, and then only by dying and rising: "unless a grain of wheat falls into the earth and dies, it remains a single grain; but if it dies, it bears much fruit," (John 12.24).

The anxiety of the good is also brought to a head in the New Testament. A string of characters experience theophanies or meet angels and are terrified: Zechariah, Mary, Joseph, Peter, the disciples on Mount Tabor and meeting Jesus walking on the lake, the women at the empty tomb, the apostles who see the risen one, Paul on the road to Damascus and the seer of the Apocalypse. Yet, Balthasar writes, "all these anxieties surrounding the Incarnate One like a nimbus are subsumed and rendered unimportant by the *anxiety of the Redeemer* himself, which signifies the difference between the anxiety of the Old and that of the New Covenant, a difference that is unique yet revalues everything." (CA 73) This is what is genuinely new about the New Covenant, and here anxiety as it has been known and experienced in the scriptures is thoroughly transformed. The incarnate one came and took on not simply human flesh but human fear as well; it is supremely in Gethsemane that this is visible. His prayers and supplications, his loud cries and tears were heard by the one who could save him from death (Hebrews 5.7). They were heard, but the answer was not the removal of his anxiety but it being entrusted to him "in the utmost degree" (CA 74). All previously known anxiety is surpassed since the one who fears is the divine Word in flesh. It is a suffering of the Holy One under the full pollution of human depravity which he willingly bore. It is a vicarious suffering of the full terror and dread of God's righteous condemnation upon every human sin.

> It is, finally and most profoundly, the anguish that God (in human form) suffers on account of his world, which is in danger of being lost to him – which, indeed, at that moment *is* an utterly lost world. So as to be able to suffer this anxiety

> and therein to demonstrate humanly how much the world matters to him in his divinity and how concerned he is for the world's sake: for this purpose he became man. (CA 75)

This third reality is the deepest of all, for God's heart is revealed through the absolute anxiety, which undergirds, contains and surpasses all other anxieties, and which becomes a standard for them. This anxiety is accepted and the cup is fully drained. On the cross, the worst of fears is realised as the Son, the one who truly knows the Father's love, is by him forsaken.

In interpreting this event, the scriptural image throughout the Old Testament for futile fear is of a woman in her labour pains, giving birth to empty wind. But in the New Testament, after the vicarious suffering and anguish of Christ, and after the Father's vindication and exaltation of the obedient Son, this image can be reclaimed and brought to its proper completion. The labour pains give way to joy, the suffering is fruitful. In the groaning of Christ taking the fears of the world to the cross, the suffering was not futile but miraculously and dazzlingly productive. The grain of wheat fell to the ground and died and resulted in a crop thirty, sixty, one hundredfold. "From the perspective of the anguished bringing-forth of the new aeon upon the Cross, all subsequent anxiety is seen now to be revalued. Now it is possible for anxiety to participate in the fruitful anguish of the Cross." (CA 79)

Anxiety is now redeemed and the cycle has been broken. Now Paul can view afresh the tribulations of his apostolic ministry, the persecutions, the stress for the churches, his weaknesses and the thorn in his flesh; all these are a clay jar containing a treasure of surpassing worth. These are the means by which God's grace is made perfect. These sufferings participate in the redeemed anguish of the man of sorrows and work towards a weight of glory that is beyond comparison. "From the perspective of the Cross, anxiety is fruitful, and from the Cross, all the world's anxiety, mediated through the travails of the children of God and sustained by the sighs of the Holy Spirit, becomes the anguish of bringing forth the new world (Rom 8.19-27)" (CA 79). This groaning and yearning for the future is not futile, even though the creation is currently subject to futility. It is in this inarticulate protest against that very futility that futility is surpassed, because the very groaning is the sign of the Spirit's presence and activity, manifest as profound discontentment with how things currently are and yearning for the liberation of all things. The Spirit

broods over the troubled waters of an anxious world, waiting to bring forth new life, even life from the dead.

The anticipated joy of the new world and the resurrection of the dead make the present suffering not worth comparing. Christ has redeemed anxiety, and rendered it possible for anxiety, the most useless of activities (indeed, frequently the cause of inactivity), to bear fruit that will last. Redeemed anxiety is the prayer that cries "Abba, Father" by the power of the Spirit. The very pain of the unfulfilled present that draws out the cry has become the occasion for the revelation that those who call on him are God's children.

Balthasar's theological reflection upon anxiety

> In the transition from the Old to the New Covenant a twofold change occurred. First, the phenomenon of anxiety was sharpened to the utmost degree and thus its greatest intrinsic conflicts were clarified. Second, through the vicarious anguish of his Passion, Christ redeemed, subdued, and gave meaning to all human fear. (CA 81)

Having surveyed the scriptures from Genesis to Revelation, the heart of the book (sharing its title) consists of his theological reflections upon the implications of Christ redeeming, subduing and making all human fear meaningful. The first and most important implication for Balthasar is that human fear has been decisively conquered on the cross. The worst has happened and there is nothing left to fear. "Fear not" is no longer a counterproductive command that generates further anxiety. It is now a genuine possibility, indeed an actual achievement since "every reason the redeemed might have for fear has been invalidated" (CA 82). Fearlessness is not simply a juridical fiction, but is true at the deepest possible levels of human being. Whether this liberation is "sweet and tender" as it is in the Johannine literature, or "triumphantly resounding" as in Paul, a new era has begun and the vicious circle of the Old Testament is past. Confidence is even possible in relation to the most fearful day of judgement. All the vicious cycles of self-perpetuating anxiety are broken.

If this is true, then existentialism, as Balthasar understands it, can only be opposed to Christianity insofar as the former claims that anxiety is constitutive of human being and must be entered into and affirmed in order to be overcome. From a Christian perspective, this has already been done. So there is no need to enter into a

sickness in order to help others to heal. Indeed, it is precisely at this point that Balthasar believes Christian believers ought to stand out in their fearlessness and in helping others find the paths out of self-obsessed anxiety.

This, for Balthasar, is the first and most decisive movement: fear is banished from the believer's heart. But there is a second that is even more surprising, which illustrates the victory of Christ over anxiety at an even more profound level. Once the cycle of unbelieving anxiety and guilt has been broken, and no trace is tolerated, then a new grace of the cross may flow: "permission to suffer anxiety as a share in Christ's anguish" (CA 89). What was banished without a trace is now given back as a gift, but transformed. This is no longer the sin-anxiety of the wicked, nor yet the anxiety of the good over relationship with God. This is a share in the sufferings of Christ, which did not isolate or diminish him as sin-anxiety does. This anxiety is open to communication and community, producing a broadening of heart, not a constriction. It is an anxiety for the sake of the neighbour, an extension of the love received from the Father, which shoulders the burden and shares the load. It is a deep concern and rather than isolating, it is an expression of solidarity[6] that refuses to pursue individualistic salvation and healing.

How is it possible to tell the difference between sin-anxiety and the anxiety of the cross entered into for the sake of the neighbour?

> There is an objective basis to the sin-anxiety that is forbidden to the Christian, and in that anxiety the properties of sin delineate themselves: a turning away, flight, a rigidity of life, sterility, desolation, the plunge into the abyss, construction, incarceration, withdrawing into self, banishment. In contrast, the basis for the anxiety of the Cross is nothing other than the love of God, who takes this entire world of anxiety upon himself in order to overcome it by suffering, a love that is in all respect the opposite of the sinner's experience of anxiety: it is instead a turning toward, an availability, life, fruitfulness, security and support, expansiveness, liberation. (CA 90)

Christian anxiety arises out of joy. It is not possible to move straight from sin-anxiety into Christian anxiety; first all fears must be banished, then out of joy and

[6] I discuss the significance of this solidarity further in Chapter Six through an engagement with Pope Francis's recent encyclical *Laudato si': On Care for Our Common Home* (The Vatican, 24th May 2015). Online: http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

freedom, a new burden is willingly carried. It is never opposed to faith, hope and love but is their expression where they overlook their own presence and are entirely unselfconscious out of concern for the neighbour.

Balthasar distinguishes this true Christian anxiety from the flickering dialectic that can be set up when a Christian is aware of their ongoing sinfulness and begin to doubt whether they are saved. Such doubts are not true Christian anxiety for they rely on trying to watch oneself in the moment of faith, a reflexivity which undercuts the very act of faith, which demands a full commitment without detachment. Balthasar is concerned to emphasise that Christian anxiety is not a mild interest or a willingness to help a neighbour. On the contrary, it is a deep communion with the situation and fears of another that arises out of joy and freedom. Christian anxiety walks the way of the cross in which glory is hidden in shame, power in weakness, and success looks a great deal like failure. Or rather success is left entirely in the hands of the God who can raise the dead.[7]

The Essence of Anxiety: von Balthasar and the void

The relationship between the first two chapters of Hans Urs von Balthasar's *The Christian and Anxiety* and the third is not immediately apparent. Balthasar's own outline informs us that his first chapter is scriptural, his second theological and his third philosophical (CA 37-38). Whereas the second chapter picked up from the conclusion of the first and developed it in systematic and moral directions, the final chapter appears almost to begin afresh and does not rejoin the main themes of the first two until well into the chapter. Yet it is here that Balthasar finally reaches his stated goal, a critique of the only other serious account of *Angst* in Christian tradition: Søren Kierkegaard's, *The Concept of Anxiety*. Therefore, to understand where and how Balthasar wishes to accept and correct the Dane, we must follow his argument in a little detail.

The opening pages of the final chapter begin with a discussion of the relation between philosophy and theology. Balthasar rejects any autonomous sphere for rationality isolated from divine revelation, since there is no such thing as 'pure

[7] In this short text, von Balthasar does not extend his account of anxiety to include the implications the doctrine of resurrection might make. Some of those implications will be explored in Chapter Six.

nature'. From the start, nature has been ordered within a narrative driven by supernature and even the fall does not change this. Therefore, philosophy as a rational reflection upon nature has no independence from supernatural revelation, and yet (since grace completes rather than replaces nature) philosophy has its own proper place as a servant once it has taken its bearings from revelation.

Note that the ordering of his three chapters is important here. He has begun with the scriptures in order to treat his subject with adequate "distance" (CA 35), lest the peculiarities of modern anxiety too thoroughly determine the discussion. He moves on in chapter two to reflect upon this material through theological and moral lenses, and only then is there space for conceptual reflections upon the human nature revealed through the gospel. These reflections can move in two directions. Faith can seek understanding, but equally, in the light of revelation, the path from understanding towards faith can also be kept clear of impediments.

Balthasar orients his philosophical discussion via a brief historical narrative of the concept of *admiratio* (wonder) (CA 117-27). Wonder estranges us from the ordinary, providing a necessary breach in which reason can find space to notice, as if for the first time, something that had become commonplace and overlooked. While Aristotle argued that wonder excludes anxiety, since the latter leads to flight yet the former to inquiry, Thomas Aquinas distinguishes multiple forms of anxiety, only some of which numb thought. Instead, he locates wonder as a form of anxiety that positively stimulates philosophising, forging the basic assumption common to Hegel, Kierkegaard and Heidegger that the disruptive effect of anxiety is the root of philosophical thought. All three rejected the alternative of hope as a fundamental philosophical experience, since the trust implicit in hope engages the subject's striving and so obscures the emergence of the thing. For an object to appear as it is, it is necessary that the subject be drawn out of the engagement that hope presupposes. Wonder leads to genuine insight only where the subject is overwhelmed by the object into self-forgetfulness. Only wondering anxiety generates the necessary distance.

Perhaps at this point Balthasar is too quick to agree with these three wise men. While hope can indeed project onto the object the desire that it be something other than it is, there is also something problematic about the ideal of a subject

distracted from its own projects in order to discover the thing without such strings attached. The assumption is that the subject is a problem to be overcome through the fierce otherness of the object. This subject and its wishes can do nothing but falsify with its gaze; the subject pollutes the pristine starkness of the object unless it is cleansed with the cold water of anxiety. It is unable to see things for what they are unless it is first denuded of its particularity, its activity forcefully curtailed by the shock of an object able to render it passive.

The violence of this account raises a question: are anxiety and hope really the only possible sources of philosophy? Might we not be able to make a case that what is required is not the partial overwhelming of subjective purposes achieved by anxiety, but *patience*? Perhaps it is the patient and engaged attention of *love* that can wait for the thing to reveal itself without coercion, and perhaps only such a patience can deny the noisy and distracting self in order to receive what is offered with thanksgiving. This is not the acquisitive consumption of *eros*, but the unhurried plenitude of a love that is unthreatened by difference and so responsive to the thing as it is. This, however, is not the path that Balthasar takes, and we will have occasion later to suggest why he wants to follow in Kierkegaard's steps at this point.

So let us return to Balthasar's argument. Given the necessity he sees in anxiety as a basis for knowledge, he rehearses the ancient distinction between natural and non-natural fears. The former has as its object a destructive evil that threatens the substance of the subject. Its quintessential form is death, and it requires a certain intermediate distance from the threat such that it is neither dissipated in remoteness nor so proximate that "the onrush of disaster buries anxiety beneath it" (CA 121). Yet for Aquinas, the soul's conception of its own immortality is so unshakable that even death threatens only the body. The latter has as its object a distressing evil that thwarts the appetitive faculties, and which is grasped by the *sensorium*. In both cases, anxiety is kept somewhat distant from the intellect and so fails to achieve the necessary jolt required for the subject to become self-forgetful enough to experience an object.

If anxiety is to do its work, a form of it must be located within the citadel of the mind. Therefore, it is to the structures of thought itself that we must direct our attention if we are to find this productive anxiety. Specifically (or rather generally),

to the "reciprocal relationship between transcendence and contingency" that is played out between Being and beings (CA 124). This relationship, known as the ontological difference comprises a perpetual stalemate between the transcendence of beings by Being on the one hand and the opacity of beings to Being on the other. Being is never exhausted by beings and beings are never determined by Being. The mind seeking to understand either Being or beings is thus caught without an anchor, adrift between two unknowable poles.

> Being eludes knowledge because it can never be an object of cognition […]. The individual existent eludes knowledge because it would really be only if it could be placed in an intelligible relationship with Being, […] only if it could be derived from Being and proven to stand in a necessary relationship to it. Both are impossible. (CA 126)

There is an imperfect echo of this standoff in the relation of the universal and the particular: "The sum total of what is actual can never be rendered intelligible as the necessary articulation of a world of ideal norms, nor can the norm be understood as the mere empirical formula for the factual behaviour of things." (CA 127)

The void experienced is not simply the self-reflective emptiness of thinking, but the fact that this emptiness cannot be avoided, being an absence uncovered in the very structure of a finite mind. There is no real knowledge of either Being or beings: "[T]he gulf yawns in the very structure of objectivity." (CA 129) Peering into this chasm is the source of the anxiety that alone can awaken the subject not simply to objects, but to objectivity, and so to anxiety itself in a vicious and dizzying circle. Thus, Balthasar reads anxiety as initially an anxiety of *cognition*, an inevitable failure of the intellect to grasp either Being or particular existents, consequently finding itself threatened by the opaque incomprehensibility of the world and its own impotence in its attempts to derive fixed meanings. Anxiety is the product not simply of the unknown, but of the unknowable.

From where does this anxiety arise? Not simply in the failure of cognition, but also in the failure of volition that accompanies it. Impotence is not merely intellectual, but since the will is also without purchase on necessity or right, it faces its own "vertigo of freedom" in which no option bears a compelling sense of having to be or deserving to be chosen: "no choice obtrudes itself with serious finality" (CA

132). The future remains an intimidating, even paralysing, open slate. While the intellectual anxiety from cognition's recognition of its structural limits lacks a determinate temporal orientation, the anxiety of volitional failure that it generates is explicitly oriented to the future.

In this respect, Balthasar sees himself here as concurring with Kierkegaard's analysis (or at least that of his pseudonym):

> The possible corresponds exactly to the future. For freedom, the possible is the future, and the future is for time the possible. To both of these corresponds anxiety in the individual life. An accurate and correct linguistic usage therefore associates anxiety and the future.[8]

Kierkegaard goes on to note that even when one is anxious about the past, this is really anxiety about the future under a different guise, since anxiety about the past requires the imagination to link some past event with a future possibility. Past misfortune may be repeated, or its as yet hidden consequences may become manifest. In any case, the anxiety stems from grasping an undesirable possibility lurking in the future, even if this is built upon prior experience in some fashion.

It is interesting to note at this point that the anxieties in which Balthasar has demonstrated greatest interest do not arise from the frequently cited sources of human mortality, physical vulnerability or even moral complicity.[9] The anxieties that drive his account are intellectual and volitional. His marginalisation of the above alternatives is somewhat puzzling. If anxiety arises from the mind's grasp of its own finitude, then the possibility of death and loss are also eloquent on this theme – from dust you came, to dust you will return – while guilt speaks of a qualitatively different experience, namely, that we are not simply dusty, but also dirty. The fear of punishment (temporal or eternal) may loom, or simply that of the dissolution or diminution of the self as a result of moral failure.

So far, Balthasar's philosophical account of anxiety has been following a path not dissimilar from that which he takes to be Kierkegaard's position. But at this

[8] Kierkegaard, *The Concept of Anxiety*, 91.
[9] Anxiety over vulnerability to loss can also be legitimately distinguished from anxiety over mortality. The former is primarily anxiety arising from impotence, from the impossibility of securing desired goods (or even meanings) against the vicissitudes of life. The latter shares this frustration over limits to power, but adds to them anxiety over the cessation of agency entirely.

point, his refusal to countenance an independent philosophical method becomes apparent as he stops to ask a theological question: "What is the human nature we have been describing thus?" (CA 133) Is it human nature as created by God under original blessing or under the curse of sin? Does anxiety belong properly to finitude or to fallenness? Was the void part of God's original gift or is it an absence of God? This is also the point at which Balthasar parts company from Kierkegaard, by answering that this account of anxiety does not conform to the original Adamic will, which was not dizzyingly neutral towards good and evil, but which was blessed with the prohibition that gave direction and blessed with the presence of God (not face to face, but in faith and obedience). In contrast, Balthasar thinks Kierkegaard posits anxiety as "latent at the basis of innocence and ignorance" (CA 136).

Balthasar therefore articulates two primary points of disagreement with the philosopher. First, he argues that Kierkegaard's psychological account so emphasises the relation of the human spirit to itself that the primary relation – to God – is lost; theology gives way to psychology. Second, according to Balthasar, Kierkegaard assumes that Adam is not qualitatively different from the rest of humanity, whereas Balthasar's Augustinian instincts observe a sharp demarcation between fallen and unfallen humanity. In both cases, Balthasar thinks that Kierkegaard has insufficiently described the nature of the anxiety-inducing void. Kierkegaard's void is inscribed into the finite human mind itself, equally in Adam as in everyone else. In contrast, Balthasar locates the void as estrangement from God, the withdrawal of God's nearness and concreteness into abstraction. Anxiety is thus post-lapsarian, non-necessary, "ascribed to the influence of the serpent" (CA 141) rather than built in to the very structure of creatureliness. Anxiety's source is not the transcendence and contingency of a finite mind, though these are indeed a void. Anxiety's source is the displacement and guilt resulting from the absence of the one who ought to fill this void.

From this point, Balthasar returns to explicitly pick up the thread of his earlier christological argument, since he has now reached a point where he can better articulate the manner in which Christ's incarnate anxiety displaces and reorients human sin-anxiety. "Christ's redemption does not eliminate this void" (CA 142) of

the finite mind, but brings God's fullness into the void, filling it. Yet this reality is only known by faith. Abstraction is not dissolved.

> [T]hrough the abiding void in man [the indifference of the intellect and the will towards every being] God's fullness reveals itself as presence in such a way that God as the first thing demands from man a total Yes to his invisible totality and in-difference. […] It is the surrender of one's own void together with its anxiety into the unfelt fullness (which therefore feels like a void) of God's totality. (CA 143)

God's redemption of finitude is not itself able to be comprehended and seized by human cognition. Indeed, trying to do so closes the possibility of a total yes to God's invisible totality. One can only walk on water if one does not look down. "One cannot simultaneously let go and cling to the letting go." (CA 144-45)

The invisibility of God's plenitude means that faith, hope and love are always a risk. They always require a leap, taken not for the sake of some reward, but because the leap is itself already "a gift of God and thus a share in his infinitude. In the daring leap, something of the limitless self-giving of the Divine Persons to each other becomes visible in a flash – at the point where all ground, which is limitation, is relinquished and where man can actually sense that being in the Absolute means – hovering." (CA 145) The invisible divine self-giving becomes (briefly!) visible where it is imitated. Yet perhaps here Balthasar has overstepped. Christians are indeed to imitate God in Christ, and even to image God in Christ through imitation, but is this to "take a stand beyond finitude" or to "come into the limitlessness of God"? (CA 145) Balthasar's intimation that faith does not simply move mountains but *removes limit* seems to imply that salvation is an escape from the conditions of creatureliness rather than comprising a properly creaturely imitation of God.[10] This would be regrettable since he has just criticised Kierkegaard for treating finitude as (proto-)sinful. Fortunately, what brings his account of "flying" or "hovering" back down to earth is his christological method; it is Christ's own faith through suffering and anxiety that prevents Balthasar's comments about reaching a point beyond

[10] For further on the relationship of creatureliness to Christian notions of godliness with particular reference to the writings of Rowan Williams, see Byron Smith, "The Humanity of Godliness: Spirituality and Creatureliness in Rowan Williams" in *On Rowan Williams: Critical Essays* (ed. Matheson Russell; Eugene: Cascade, 2009), 115-140.

finitude being misunderstood. Perhaps Balthasar is searching for a way of speaking of the invisibility of the grounds for faith rather than expressing a desire for their removal.

In any case, the believer is to hand over everything, including her emotional disposition, to God. Whether she is given the gift of having anxiety dispelled or the further gift of a redeemed-anxiety, the believer is content. Contentment is not undisturbed repose, but the recognition of and orientation towards divine gifts amidst suffering. Here, finally, Balthasar ties his discussion back to the context at which he hinted in the introduction by noting that he has not yet discussed the Church. He points to the various visible helps available as "supports and handrails with which to teach and train [us] for that one leap away from all handrails" (CA 150). Acknowledging that these visible helps can be and often have been sorely abused, Balthasar insists that their purpose is to point beyond themselves to the "closeness of the incomprehensible God and of his love" (CA 151). The visible aids to faith the Christian embraces in ecclesial life are pedagogic in purpose, but do not themselves constitute the life of faith, merely pointing to it.

Balthasar concludes with some reflections upon the necessity of courage, or rather, of the Christian virtue of fortitude, which is not the absence or opposite of anxiety, but supremely consists in helplessness and weakness combined with faith and perseverance. "Ever-increasing defencelessness is an ever-increasingly open stance toward God and for God, and hence an ever-increasing influx and indwelling of God's power in man." (CA 154) Only the one who is "ready to be deluged by every anxiety" (CA 155) is truly courageous. The only equipment offered is faith, hope and love, the very things that mean "the soul's openness to salvation". Thus, "In this openness, which the Christian possesses and allows to radiate from him like a light, he conquers the self-contained, armoured world." (CA 155) The void of anxiety is filled by the fullness of God and yet, for Balthasar, the one whose anxiety is thus filled is not rendered inert by this satiation. On the contrary, being filled is the condition of possibility for an openness to the new, the unknown and the threatening that fosters a stance of active engagement, a willingness to venture forth into vulnerability and loss without such possibilities being paralysing. The intellect is not relieved of its bafflement in the face of the unknown or unknowable, nor is the

volition necessarily tasked with unambiguous acts. But the strangeness of the new no longer terrifies and previously giddying freedom stretches forth its hand in creativity. Branching out from Balthasar's analysis, it is this central gospel possibility of creative deep concern for the neighbour that I will pursue in the remaining sections of this chapter.[11]

By relocating anxiety as possible due to the void of finitude in the human mind, but only actual under conditions of godlessness, Balthasar rescues from Kierkegaardian existentialism the non-necessity of anxiety, and so also the possibility of its being redeemed into a gratuitous expression of the renewal of human existence.[12] More than this, human anxiety becomes the moment in which God's own heart for the world may be revealed as believers participate in the redeemed anxiety of the Redeemer and so are opened to be anxious *for* others or to what I term a creative deep concern for the neighbour.

This concern for the neighbour, where a redeemed anxiety is placed in service of neighbourly love, does not replace or dominate that love, but is merely one aspect of its expression. Similarly, the scriptural theme of fearing God can be understood to be one aspect of the expression of a proper wholehearted love for God,

[11] A further extension of this account could draw on this distinction between paralysing vs. liberating fear to interpret Jesus' teaching about worry in Matthew 6.25-34. Jesus' injunction in verse 34 ("Do not worry about tomorrow") seems to have a negative meaning similar to the self-protective *anxiety* we have been discussing above: a persistent fear of what might be, of fretfully anticipating personal needs going unmet, an endless imaginative dwelling in negative possibilities over which one has little control. But worry can also have a more neutral meaning close to *concern*: a careful focus upon the welfare of the object of concern. This need not involve anxiety, but is simply love looking forwards, anticipating needs before they arise. I think it can be argued that Jesus is not ruling out this latter meaning, only the former. It is the anxious striving after security that he is addressing in this passage. A deep affective care for the needs of others, including provision of clothing or food for those without, is unlikely to be the target of Jesus' prohibition.

[12] It is instructive to compare Balthasar's account of Christian anxiety with Karl Rahner's brief exposition of what he calls "Christian pessimism": Karl Rahner, "Christian Pessimism" in *Theological Investigations XXII* (trans. Joseph Donceel; London: Darton, Longman and Todd, 1991), 155-62. Like Kierkegaard, Rahner makes his "perplexity" an inescapable, existential structure of human existence, directly flowing from creaturely finitude. In doing so, and by suggesting that the only resolution to this perplexity is essentially a change of perspective (a cognitive one that seems to leave the world strangely untouched), I would argue he veers dangerously close to capitulating to despair of the sort that Paul thinks has no place in the Christian life (2 Corinthians 4:8). Rahner's concept of Christian pessimism is an important one, but his account of how this pessimism is to be integrated while not giving way to despair is too neat. Paul can face his perplexity without despair, not because perplexity is already a taste of God (as Rahner ends up concluding), but "because we know that the one who raised the Lord Jesus will raise us also with Jesus, and will bring us with you into his presence." (2 Corinthians 4.14). This is what keeps him going on the difficult road of his apostolic mission. This is what makes Christian pessimism possible. For Paul, life might look and feel like taking up a cross, denying self, following Jesus into anguish, loss, difficulties, threats that cannot be overcome and finally death – but God raises the dead.

a fear whose character is shaped and nuanced by the greater love of which it is the servant. As love for God thus embraces a reverent awe that can be called a redeemed form of fear, so love for neighbour embraces a deep affective concern as its proper expression of redeemed fear.

To conclude the analysis of Balthasar's *The Christian and Anxiety*, I have argued that Balthasar's theological treatment of anxiety is a stimulating and nuanced approach to the phenomenon, which takes seriously the full breadth of the scriptural witness on the matter. His text has two central principles that attempt to keep a fruitful *via media*. First, the Christian need not be overwhelmed by the anxiety that so morbidly fascinates the age; it is not a necessary part of being human since Christ liberates the believer from all fear. Yet second, Christ's redemptive anxiety is opened up to Christian participation, meaning that freedom from the vicious cycles of fear and worry does not mean an atrophying of the affections in a Stoic detachment. One can feel the full weight of the threats being faced from within a joy-filled freedom.

For the purposes of my interests in this thesis, Balthasar's account of Christian freedom from fear and the subsequent gift of Christian anxiety opens up deeply fruitful ways of thinking about the conditions of possibility of ethical reflection under apparently inexorable threats. It has the advantage of neither being trapped in the paralysing fears of sin-anxiety that erode ethical discourse and deliberation, nor requiring a disconnection from the real possibility of catastrophe. In the remainder of this chapter I will build on this account with a sketch of some concrete possibilities for the shape Christian ethical reflection might take in the face of climate fears.

As established in earlier chapters of this thesis, the climate threats humanity faces are far from inconsequential. The observed warming to this point is already shaping the lives and possibilities of billions of people in subtle and profound ways, and these changes are gathering pace. While wealthy nations have thus far been able to buffer themselves somewhat from at least some of the negative implications of these changes, projections of future change include non-marginal scenarios in which the adaptive capacity of many human and most natural systems is exceeded. The climate and ecological crises into which we are collectively hurtling are not merely crises for those already vulnerable, but before long will touch and shape the lives of

virtually all of Earth's inhabitants. Our ecological and climate predicaments will profoundly shape the social context within which the church's discipleship and mission occur over the coming decades. Let us turn then, heading into the space cleared by Balthasar's account, to further scriptural and theological reflection upon this context in order to explore the implications for Christian ethical deliberation.

An expansion of neighbourliness

If I hold a party in my apartment and play music loud enough for those who live above and below me to get annoyed, then my actions negatively impact a given circle of people. If a friend comes over with larger speakers and we turn the volume up to maximum such that the whole street can now hear, there is a sense in which I now have more neighbours than I did a few minutes ago. Put another way, one way of parsing neighbourliness is that it at least includes those lives that my actions touch. Indeed, Jesus' parable of the Good Samaritan emphasises the potential expansion of neighbourliness in new and unexpected directions. Jesus' interlocutor had asked "who is my neighbour?" in an effort to minimise the bounds of his proper responsibility and so justify his current actions. But Jesus responded with a question that undercut such attempts at boundary-marking: "Who was a neighbour to the man?" Irrespective of duties or rights, Jesus invited his listeners into imagining the possibility of *acting as* a neighbour out of compassion. Rather than acting on the basis of a self-protective self-regarding fear, the believer can follow Jesus into an open-hearted concern for the needs of others.

Such compassion is an echo of God's universal compassion for all that he has made (Psalm 145.9) and walks in the footsteps of Jesus, whose boundary-breaking and creative compassion discovered neighbours in unexpected places. The narrative of Jesus subverts the desire to wash our hands of difficult situations with a dismissive attitude, or a cold calculus of moral purity. Perhaps the hesitation of the priest and Levite to help the injured man may have stemmed from a fear of touching a dead body and so becoming unclean. By contrast, Jesus' infectious holiness sought out opportunities to welcome and befriend those whose presence at the margins is an uncomfortable reminder of the fragility of our attempt to construct neat and exclusive identities.

Today, we discover all kinds of neighbours we never knew we had through networks of influence that extend beyond the horizon of our daily vision. Our actions today have consequences and impacts that extend significantly further than they used to. Much of the carbon dioxide resulting from our energy use will last in the active cycle of atmosphere, oceans and biosphere for centuries and millennia, affecting human and non-humans lives on the other side of the planet and many generations into the future.

The expanded reach of our agency creates new possibilities for blessing or harm, and so, in a similar manner to increasing the volume of my sound system, this increases the sphere of neighbourliness, making lives I will never meet proximate to my own in certain important respects. Instead of obsessing over the ways climate change may impact my life and prospects, redeemed fear that has become love's servant can pay greater attention to the threats my neighbour faces (including those who may be distant in time or space), especially if I have contributed to those threats. If love does no wrong to a neighbour (Romans 13.10) then the grievous harms associated with our current way of life call out for an expansion in our moral vision. Such expansion, however, is no simple matter.

Looking ahead: Anticipation, prudence and compassion

Humans are generally not very good at responding to long-term threats. We are wired to focus on the immediate. Warnings that smoking or obesity might cut years off our lives all too often fall on deaf ears. Or even where the veracity of the claim is acknowledged, there remains a disconnect between this acknowledgement and remedial action. As was explored in Chapter One, our climate crisis has a particularly insidious temporal structure: incremental changes (often as the result of pursuing certain immediate objectives that may well be good or pleasurable in their own right) lead to unforeseen consequences "in the pipeline" that may take years, decades or longer to become fully manifest. The distance between the actions that cause harm and the suffering of that harm is widened in climate change to be not only temporal, but also spatial and relational, meaning that there is no immediate or proximate visibility to the consequences of actions that only become highly problematic in a cumulative manner. Thus, all manner of convenient distractions and

half-truths hiding in the complexity of the issue can displace responsible action. We can point out the relative size our tiny contribution and the inefficacy of reducing it by ourselves; we can question the consequences that are as yet only forecast; we can lower our ethical horizons to include only what is visible in my neighbourhood.

The problem is that we are used to making our ethical decisions as though we were walking, where avoiding a pothole or canine faecal incident is only a matter of looking a step or two ahead. But we are no longer walking. Our greater agency through soaring population and technological innovation means that our actions have greater consequences, affecting a wider sphere over a longer period of time. Our consumption and production do not just satisfy our immediate needs and wants but have unforeseen knock-on effects that extend much further than they used to. When you drive, you need to look further ahead, observing and anticipating events over a wider field of interactions and responding well ahead of time to possible threats. 'Too late' happens surprisingly early. In driving, one needs to look further ahead and further afield than when walking because the consequences of one's actions are so much greater. A mistake while walking means bumping into a stranger and perhaps meeting a new friend. A mistake while driving could mean sending a tonne of metal travelling at superhuman speed into a brick wall, or underneath a fifty tonne truck coming the other way.

In such a context, the horizon of prudent anticipation has increased. Just as our circle of neighbourliness expanded to embrace lives we have never met whose space for flourishing is profoundly shaped by our choices, so the horizon of Christian moral imagination and vision needs to expand. The redemption of fear in the fear of the Redeemer marks the crucial first step of that extension: from self-regard to noticing my neighbour's needs. Our new climate context invites us to continue that enlargement of our vision.

Expanding moral horizons

But how can Christians come to see strangers as neighbours when we do not actually see the lives of those strangers, nor intuitively grasp the causal links between our acts here today and the consequences far distant in time and space that result? When those who will suffer most from our actions are generally those who have done least

to contribute to the problems (i.e. the global poor, future generations and other species), how does Christian discipleship train us to recognise our complicity in such largely invisible injustice and discern creative paths forward?

For ancient Israel, the experiential centre of the vocation towards compassionate neighbourliness was their experience of having been aliens in Egypt, outside the sphere of moral concern for the ruling classes, largely invisible to those at whose hands they suffered. The experiential knowledge of suffering created the emotive bridge to see in others those who may suffer like we have done. But this alone is insufficient. More important than their recollected suffering was the memory of divine grace, of YHWH's promised presence and liberation.

A similar pattern is evident in the New Covenant. The ground for compassionate concern towards others is the knowledge of having been graciously welcomed by God in Christ. In Emmanuel, God drew near to humanity, chose to become our neighbour, to make a dwelling amongst us, to share our concerns and enter into our plight, to bear our sorrows and anxieties through Gethsemane to their crucifixion with him, and to give them back to us in resurrected and redeemed form, made new in the service of caring for our neighbour. It is only in the light of unconditional divine grace that we are enabled to see the full scope of our plight and the failure of our projects.

The pure grace in this move subverts, extends and completes whatever human reasons we may discover for compassion. For instance, we may find in our children and grandchildren a useful imaginative bridge for conceiving of intergenerational injustice and so discover reasons to curb our consumption today for the sake of those who will come after. Yet this bridge can easily become a narrow interest in securing the flourishing of my progeny at the expense of the children of others. It can also focus attention on decadal timescales and away from longer periods. So this natural human affection must itself be crucified with Christ that it may rise to new life as compassion for the children and grandchildren of even my enemies.

Beyond survivalism

The Christian gospel, specifically the resurrection of Christ as the first fruits of what is to come, as a promise of new life for all of God's groaning creation, opens a space

in which securing our survival is no longer our dominant concern. As Chapter Four noted, while in bondage to the fear of death, the fierce urgency of minimising the chance of our own demise generally trumps all other considerations.

Yet the scriptures suggest that those whose faith is in the God who raises the dead will find their fears of death relativised.[13] This is true personally, but also at a societal level. Our primary goal is not securing the continuity of our civilisation, far less our way of life. So when we awaken to the ways in which we are undermining the conditions of possibility for human flourishing (and the flourishing of all life on the planet), our primary stance is not defensive or self-regarding. The hope of a resurrection like Christ's, of the vindication of the way of Jesus Christ, of the renewal of all things frees us from responsibility for securing our existence. But this freedom is not freedom from concern. We are free from the crippling anxieties in which we dream of being able to escape our nightmare, and free to give ourselves in loving concern for our neighbour. Not just our immediate neighbours, but all those whose lives are being touched – and indeed not just touched, but violently shaped – by the choices we collectively make. The church is a community sustained by a narrative that opens the space for moral imagination to embrace a widening sphere of neighbours in a conception of shared goods, and so the possibility of discovering a common good between rich and poor, between present and future generations, between humanity and the rest of the community of creation.

On imagining the future: Human action as reaction

> Come now you who say, "Today or tomorrow we will go to such and such a town and spend a year there, doing business and making money." Yet you do not even know what tomorrow will bring. What is your life? For you are a mist that appears for a little while and then vanishes. Instead you ought to say, 'If the Lord wishes, will live and do this or that.' As it is, you in your arrogance; all such boasting is evil. Anyone, then, who knows the right thing to do and fails to do it, commits sin.[14]

[13] For example, Hebrews 2.14-15: "Since, therefore, the children share flesh and blood, he himself likewise shared the same things, so that through death he might destroy the one who has the power of death, that is, the devil, and free those who all their lives were held in slavery by the fear of death." (NRSV)

[14] James 4.13-17 (NRSV).

If making confident assertions of the likely course of my personal life is arrogance that ignores the fact that I am not in control, then expanding such claims to society as a whole seems sheer hubris. Nonetheless, it is important to note that this passage from James does not rule out all expectations of the future playing a role in decision-making. It is not that Christians are forbidden from considering the future or making plans based on such considerations, but that all plans must be written in pencil, not ink.[15] This requires a certain chastisement of imagination, or perhaps better, imagination's acknowledgement that it is imagination. The future is uncertain; it is an arrogant boast to confuse pictures of a possible future with my desires for the future and assume that I can (or must) ensure the realisation of those desires. The future is not mine to seize and shape, but God's to give and take.[16] The role of the believer, according to James, is humble receptivity, trusting thankfulness, loving perception and hopeful prayer. Drawing upon von Balthasar's argument, this receptivity is first to the gracious work of God in Christ, but also to the context in which we meet our neighbour and our neighbour's needs.

Does this stance foster passivity, a resignation in the face of suffering and so a complicity in failure to secure liberation for the oppressed? It can and all too often has. But it need not. A thorough account of human action will be more open, more honest, more creative and more effective for taking the priority of divine grace more seriously. God initiates, we respond. Human action is *re*action. That is the lesson of James. This does not require passivity, rather openness to the unfolding possibilities of loving God and neighbour, an openness in which we take seriously our situation and take just as seriously the Spirit's power to breathe new life into hearts of stone (cf. Ezekiel 36.26; 37-1.14).

Each of us is thrown into a concrete historical situation that is neither of our choosing nor our fashioning, born within a family and culture that we can only receive. Rejection or reformation are, of course, forms of reception. We do not begin

[15] It is likely that the text is here specifically addressing merchants, as these considerations of comings and goings were typical of ancient commerce. Peter H. Davids argues that it is specifically Christian merchants in view. See *The Epistle of James: A Commentary on the Greek Text* (Grand Rapids, MI.:Paternoster, 1982), 171-72. Ralph P. Martin is less certain of this latter identification, however. *James: Word Biblical Commentary* (Waco, TX: Word, 1988), 165.

[16] Davids, *James*, 173 points out that the ephemerality and unpredictability of life expressed in verse 14 were common tropes in ancient writers, but that the passage transforms these observations with reference to divine providence. Martin, *James*, 166 demonstrates that this perspective echoes the perspective found frequently in Hebrew wisdom literature, including Proverbs and Ecclesiastes.

with a blank slate, even if we wish to shatter or erase what is written. We are born amidst a broken glory. Unbidden, we both rejoice and suffer as a result. Our world, our selves and our time are not creatures of our will, to be made into whatever image we desire.[17] We receive them as gifts from God, despite the flaws evident in them, giving thanks for what is good, trusting that what is not is not beyond redemption.

No deficiency in my self or my shared world or the span of time for my life is excluded from this trusting acceptance because at the heart of the world, self and time which I receive lies Christ, who is the hope of healing, of new life in the deadest of ends, of space to breathe. The gift thus received is my life: my self, my world and the time of the former amidst the latter. The hidden centre of that gift is Christ, who is the image of my true self, the founding principle of creation and the alpha and omega of time. Human action begins in humble receptivity towards and trusting thanksgiving for that gift.

Yet I am also called to account for what becomes of my self, my world and my time. The gift brings responsibility. Not only is the gift to be received, but understood, entered into and explored. The gift invites not mere submission of the will, but the delight of the heart, the joyful harmonising of the affects. Coming to know this gift involves not simply the intellect but crucially *love*. Only a participation in God's passionate concern for his creation (whether or not this is how we conceive it) enables us to see what is actually around us. The dispassionate observation of objective inquiry is frequently a necessary step in this process, but it is a limiting of focus that occurs within a broader framework of care. We learn about the world and ourselves and the time available to us because we care what happens, who we are to become. We are responsible for the gifts we have received.

Having become responsible, we therefore care about possible futures, about paths that open before us, about the destiny of the good things entrusted to us. We face future prospects because we cannot do otherwise without closing our hearts and hands. Faithful imagination requires the abandonment of false hopes, as well as the rejection of myopic assumptions that things must remain as they are. The pursuit of responsible care for the gifts we have received may require of us the rejection of utopian fantasies, but also the questioning of the status quo. What we may hope for

[17] Oliver O'Donovan, *Self, World, and Time* (Grand Rapids, MI.: Eerdmans, 2013), 9-16.

along the way is neither ease nor comfort, but that the road we walk will not, ultimately, be a dead end, that our labours of love will not be in vain.

The path of faith, hope and love - that is, the path of true human action in the way of the crucified and risen Christ - is narrow, dangerous and often not immediately perceptible. It can only be walked with prayerful dependence and an ongoing openness to correction and further guidance. But it is a journey into life.

Conclusion

The climate crisis is not likely to go away anytime soon. In fact, there are strong reasons to expect it will have an increasing influence at all levels of society from geopolitics to everyday life, significantly affecting everyone in direct and indirect ways. The anxieties that such impacts already provoke can depower and isolate, cutting us off from community, or sending us into the comfort of closed groups. Yet von Balthasar's account of the redemption of anxiety suggests a different possibility. Instead of finding our fears numbing our capacity for deliberative action, in Christ's banishing of selfish fears and redeemed gift of deep neighbourly concern may be found new eyes to see beyond ourselves and our immediate context.

This gift, a growing sense of neighbourliness, first rescues us from the paralysing confines of the self, and then expands our moral horizons to discover neighbours distant in time and space. Our next chapter takes this one step further, into a discovery of neighbours beyond the boundaries of the human, and into the realisation of Earth and its entire living community as our home, our family.

Chapter Six

Coming Home to Care

Pope Francis and the Prospects for Christian Climate Ethics

What, then, of the possibility of Christian climate ethics? In the face of the second-order threat posed to ethical deliberation by fears arising from anthropogenic climate change, how might a positive space for faithful reflection and resolution be established? Having explored the nature, historical analogue and novelties of that threat in the first three chapters and ruled out a false path in the fourth, the previous chapter explored a Christological basis for the banishing of self-focussed fears and the emergence of a redeemed form of fear. Ruled out were fears arousing self-protective mechanisms that seek to hedge against the threats to identity and dominant cultural narratives precipitated by climate change. In its place, Christ's anguish in Gethsemane opens the way for Christian discipleship to include a deep affective concern for the plight of our neighbour, a fear that springs from love and leads into care.

If Christ's own anxiety is the ground and model for this transformation of climate fears, what is the lived experience within which such care might be expressed? What does it look like for a redeemed fear to have space for ethical deliberation amidst the pressures and psychoses of our climate crisis? Again, our goal is not to flesh out a full Christian climate ethics, but to map the theological and emotional spaces within which such ethics can be pursued. Put differently, this chapter articulates a stance for the tasks of Christian climate ethics that does not fear (a well-ordered) fear.

As a guide and launching pad for further reflection, we shall take the most recent papal encyclical, *Laudato Si': On Care for Our Common Home*.[1] Through this text (and texts that it invokes), we can highlight three stances. First, the solidarity of creation in worship – a stance affectively orientated towards non-human creation as God's gift independent of humanity's needs, but also in community with us. Here, any anthropocentrism reflected in instrumental reasoning towards creation

[1] Pope Francis, *Laudato si': On Care for Our Common Home* (The Vatican, 24th May 2015) Online: http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html. Paragraph references appear within the main text.

or misused concepts of dominion must be put aside. Second, a fundamental orientation towards *this* earth as our home, held in common with the broad family of creation. Here we find an emphasis on connection. Third, the need to care, which can be developed along three lines of thought: the prior need for joy; the desirability of groaning for renewal; and the hard task of honesty in the face of shared grief.

Laudato si': On Care for Our Common Home (2015)

In 2015, Pope Francis published his first full encyclical,[2] *Laudato si'*, subtitled *On Care for Our Common Home*. The choice of title and framing are crucial for understanding this agenda-setting text.

In February 2013, Argentine Cardinal Jorge Mario Bergoglio became the 266th and current pope, the first from the Americas, the first from the Southern Hemisphere and the first non-European in well over 1,200 years. He chose the papal name Francis, in honour of St Francis of Assisi (1181/82-1226) because he was "the man of the poor, the man of peace. The man who loved and cared for creation and in this moment we don't have such a great relationship with the creator. The man who gives us this spirit of peace, the poor man who wanted a poor church."[3] Thus, from the start, the new pope signalled three of the main themes of his papacy: poverty, peace and caring for creation. His first full encyclical weaves these three together, with a particular emphasis on the third.

The title is taken from the opening words of St Francis's famous *Canticle of the Sun* (1224):[4] "Praise be to you, [my Lord]". The canticle is quoted in the opening two paragraphs, which not only introduce but also provide the crucial frame for the entire encyclical. For St Francis, creation, specifically the Earth, is a sister and mother to humanity. This familial relationship brings privileges and implicit obligations, binding humanity together in fundamental solidarity with the entire

[2] He had previously completed an encyclical begun by his predecessor Benedict XVI, *Lumen Fidei: On faith* (The Vatican, 29th June 2013). Online: http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20130629_enciclica-lumen-fidei.html.

[3] "Pope Francis lays out vision of 'poor church' working for the people" (*The Guardian*, 16 March 2013). Online: https://www.theguardian.com/world/2013/mar/16/pope-francis-st-francis-assisi. Accessed March 2013.

[4] Also known as the *Canticle of the Creatures* or *Laudes Creaturarum* (*Praise of the Creatures*), the song is one of the very first literary works to have been composed in Italian (in this case, the Umbrian dialect).

planet on which we dwell and which is our common home, not just with seven billion other humans, but also with millions of other species in complex ecosystems.

St Francis' *Canticle of the Sun* in turn draws upon earlier texts, especially the apocryphal *Song of the Three Children* and Psalm 148. By exploring each of these (in reverse order) and considering their implications, we can obtain a richer understanding of the encyclical (and, indeed, of the fundamental orientation needed for a Christian climate ethic). In particular, the texts highlight three themes: the fundamental solidarity of creation in doxology and receptivity; the expansiveness of this solidarity to all of creation, whether seen or unseen; and the understanding of creation as both a conduit for praise and a family of praise. In drawing from these texts or backdrop, Pope Francis takes these themes into the present climatic crisis..

Psalm 148

Psalm 148 is a paean to the Creator from all creatures.[5] Repetitive and symbolically comprehensive, it is a roll call for a universal choir, summoning all creation to praise Israel's god, YHWH. The first six verses begin in the heavens, naming heavenly beings and bodies and inviting each of them into praise of the creator. The next six verses call forth the answering song "from the earth", moving from distant creatures to those more proximate to a human perspective, culminating in a call to humanity, great and small, to join the collective chorus.[6] The last pair of verses forms a coda, shifting from direct invocation into explanatory commentary.

The psalm's original readers would also have often been its performers in cultic celebrations, placing onto their lips both praise for the Creator God and a welcome to fellow creatures into the privilege of communicating the Creator's goodness. Written by and for humans, the psalm places humanity in a particular relationship to both God and other creatures, with the latter on the basis of a shared relation to the former. By making praise the central activity, the psalm emphasises

[5] Much of the following reading of Psalm 148 is both indebted to and builds upon Richard Bauckham's *Bible and Ecology: Rediscovering the Community of Creation* (London: Darton, Longman and Todd, 2010), 76-82 and "Joining Creation's Praise of God" in *Ecotheology* 7/1 (2002): 45-59. These in turn pick up the argument of Richard Cartwright Austin in *Hope for the Land: Nature in the Bible* (Atlanta: John Knox Press, 1988) that the most basic human responsibility (indeed that of all life) is creaturely praise of the Creator (see especially p. 49). See also Michael Northcott, *The Environment and Christian Ethics* (Cambridge: Cambridge University Press, 1996), 180-82.

[6] Although Psalm 148 itself never uses the terms for singing or music, the invitation to praise is frequently associated with music throughout the psalms (cf. Psalms 146.1-2; 147.1; 149.1; 150.1-6).

human dependency upon YHWH's initiative and sustenance. By making that activity shared with all other creatures, the psalm puts humanity into a more than human context, a community of creation with a common task of praise.

The creature's (and creation's) fundamental relationship to God is a receptivity of being and blessing. YHWH's creative command summons into being the elements and inhabitants of creation. All have received their life and existence from divine fiat (v.5), depend upon divine faithfulness to ensure their continuation (v.6), and are to remain responsive to the Creator's bidding and ongoing management of creaturely realities (v.8).

This basic dependence upon and responsiveness to God's creative command elicits creaturely appreciation as the most apt response to YHWH's blessing. Praise is the public expression of that gratitude, the creature acknowledging its Creator and so acknowledging itself in that act *as* creature. By gratefully pointing beyond the creaturely realm, the creature comes to know itself as created, as vulnerable, as gift. In praise, the creature awakens to its own being as gift, and simultaneously also discovers the crucial creaturely task of gifting itself back in divine service. While praise is a primary act of intrinsic worth requiring no further justification than the worth of the one praised, it also thus has a role in ethical formation, training its participants in "the fundamental spiritual posture of the creation towards the Creator".[7] Doxology done for its own sake not only expresses the heart of creaturely existence, but helps transforms the worshipper into the kind of being proper to their nature.

Yet the act of praise also spills over beyond this relationship, exceeding the communicative act from creature to Creator to include an audience of those who witness the testimony of the creature's thankfulness and delight. The psalm functions as both an act of praise and an invitation to the hearers to join in that praise, to join the universal choir in recognising their creatureliness and bless YHWH the Creator. This invited audience exceeds the human community, embracing all beings.

What does it mean for the more-than-human creation to praise YHWH? How can a snake or a shark, let alone a swamp or a sea floor, sing its Creator's praise? Is a

[7] Michael Northcott, "The Spirit of Environmentalism" in *The Care of Creation: Focusing Concern and Action* (ed. R. J. Berry; Leicester: InterVarsity Press, 2000), 173.

lion's roar its praise, or thunder's clap? What then of a giraffe or moonlight – does their silence somehow exclude their participation? At what level does this metaphor operate? Some may be tempted to consign such notions to pre-scientific animism, dismissing the psalmist as mistakenly ascribing motive or consciousness to inanimate objects. Others may think of this image as poetic hyperbole or else a projection of the psalmist's own desire to praise God onto the more than human world.

Yet Richard Bauckham helpfully suggests that the psalm may be understood metaphorically and yet still with real theological significance. In his view, the psalm should be read as affirming that all creatures praise YHWH simply by being themselves, by existing and function in the web of relationships in which they flourish.[8] As they function in their various ecosystems, their existence, abundance, diversity, beauty and resilience testify wordlessly to divine creative power and wisdom (cf. Psalm 19.1-4).

In this way, the universality of this fundamental creaturely relationship to God provides a crucial aspect of the human relationship with the rest of the world. Both share an origin in divine will and a responsibility to magnify the divine. While Israel is named as YHWH's "people", who are "close to his heart" (v. 14), the text contains no strong anthropocentrism, and its picture of humanity is also not racially exclusive. Humans and other creatures show far more in common than what separates us. This community of creatures extends beyond sentient life, to embrace all life, and beyond all life, to embrace the whole of reality, heaven and earth.[9] It also unites humanity: men and women, young and old, kings and nations (vv. 11-12).

In the picture painted by the psalm, all is as it should be. There is no hint here of the brokenness or frustration of creation foregrounded elsewhere in the biblical canon.[10] The ocean and its monsters, both frequent symbols of chaos in the Hebrew scriptures, pose no threat. Even potentially disruptive weather – "lightning and hail, snow and cloud, stormy winds" – all remain under the direct government of God.

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[8] Bauckham, *Bible and Ecology*, 79.

[9] Interpreting the function of the references to angelic beings in the psalm is beyond the scope of this thesis. Such references may at least encourage a certain humility in our understanding of just what is and is not to be included when we speak of creation or creatures. "There are more things in heaven and earth Horatio/Than are dreamt of in your philosophy." William Shakespeare, "Hamlet: Prince of Denmark" in *Shakespeare: Complete Works* (Oxford: Oxford University Press, 1988 [c.1599-1601]) I.v.167-68.

[10] For example Genesis 3 and Romans 8.

Indeed, by placing humanity last and the heavenly realm first, the psalm's poetic order echoes the narrative order of the first creation account in Genesis 1: heavenly bodies; earthly features; non-human life; humanity.

The psalm may then be seen as an idealised picture of primordial creaturely life, prior to the narrative entry of sin and disorder in Genesis 3. Alternatively, or perhaps additionally, some scholars see it as an eschatological promise of reordered existence.[11]

Either way, while this psalm may not be an exhaustive account of the nuances in the respective roles of the human and more-than-human creation, it offers an axiomatic orientation of shared receptivity, doxology and solidarity. That is, all humanity receives everything from God, is oriented towards God and is first and foremost a part *of* creation rather than apart *from* it.

The Song of the Three Children

The Song of the Three Children is closely related to and very likely derived from Psalm 148.[12] It is found in the apocryphal addition to Daniel chapter 3, which is also known in Western liturgical traditions as the *Benedicite*, after the repeated Latin opening of each line. The text was likely originally composed in Greek and may be an interpolation of an earlier hymn put onto the lips of the three men divinely preserved from combustion in Nebuchadnezzar's fiery furnace.[13]

Similar in structure to Psalm 148, *The Song of the Three Children* takes the basic idea of a cosmic choir bringing together heaven and earth and expands the enumeration of its members.

After a general exhortation, there is a list or roll call of creatures called upon to praise the Lord. This is broken into two sections, one of heavenly beings and bodies, including angels, astronomical bodies and meteorological phenomena, and one of earthly beings, including geological features, plants, hydrological features and

[11] For instance, Stephen C. Barton, "New Testament Eschatology and the Ecological Crisis in Theological and Ecclesial Perspective" in *Ecological Hermeneutics: Biblical, Historical and Theological Perspectives* (eds. David G. Horrell, Cherryl Hunt, Christopher Southgate and Francesca Stavrakopoulou; London: Continuum, 2010), 266-82.
[12] The text of the *Song* can be found in Appendix A.
[13] "The Prayer of Azariah and the Song of the Three Jews" in *The New Oxford Annotated Bible: New Revised Standard Version with the Apocrypha* (New York: Oxford University Press, 2010) 1544-1547.

non-human animals, culminating in humanity generally, and specifically Israel in cultic array.

The extended list of weather-related items (rain, dew, winds, fire, heat, winter cold and summer heat, dews and falling snow, nights and days, light and darkness, ice and cold, frosts and snows, lightning and clouds) displays an increased interest in climate and by implication its impacts on human society. By placing the varieties of weather into a repetitive song of praise, the text affirms that all meteorological conditions are from the Lord and thus rejects seeing weather as destructive chaos. It also resists any easy equation of inclement weather with divine disapproval. If even snow, frost and lightning are capable of adding their voices to divine worship, then their activity and presence brings glory to God. While it is possible to read extreme weather as glorifying God through enacting judgement, there is no hint of that in the text. All kinds of weather events are included as amongst God's creatures and there is no mention here of the weather obeying divine bidding, as in Psalm 148. Perhaps this indicates a picture of creation in which creatures (even in some sense weather events) have some measure of agency. The placement of this song celebrating fire and heat within Nebuchadnezzar's fiery furnace may also suggest that the elements are resistant to human manipulation in opposition to God's plans.[14] What the king intended as excruciating execution, the text reinterprets as just another one of God's creatures responsive to God's will and reflecting divine glory.

The pairing of heaven and earth that was present in Psalm 148 is here extended and becomes even more prominent. The community of creation to which humanity belongs and amongst which human praise finds it proper context is not one limited to the immediate terrestrial human environment. It extends into the wilds, into the marine depths and up into the inaccessible heavens. Thus the context within which human praise resonates cannot be reduced to a backdrop to an exclusively human drama. It is no mere environment, but a series of variegated beings and events, capable of expansion from Psalm 148's short list into the longer register present in *The Song of the Three Children* and presumably into considerably longer catalogues too. In bringing together heaven and earth it symbolically reaffirms the

[14] If this text is indeed an interpolation of an earlier composition into the Daniel narrative, as seems likely, then at least this reading makes sense in its final context, even if it goes beyond the point of the original composition.

goodness and coherence of all creation, seen and unseen, and reassures humanity that God can be worshipped from amidst creation rather than our needing first to be somehow extracted out of it.

The Canticle of the Sun (1224/26)

St Francis's famous hymn also clearly owes a debt to Psalm 148 and likely to *The Song of the Three Children* as well.[15] Once again, after an opening ascription of universal praise, the lyrics list elements in creation, beginning in the heavens and moving down to the earth and thence to human praise. Nonetheless, the *Canticle* departs from the earlier compositions in pronounced ways.

First, the introduction is longer and emphasises the uniqueness of God as recipient of worship ("All praise is yours, all glory, all honour, and all blessing"). This opening ensures Francis's greater personification of non-human creatures is not confused with deification.

Second, the addressee of the song is "my Lord", rather than being a general summons addressed to the various inhabitants of creation. This shifts the song from proclamation into prayer. The first person singular possessive throughout makes the composition more personal and more focussed on the human-divine relationship.

Third, the creatures named as participating in praise are included with the preposition "through". The Lord is praised *through* all creatures, rather than *by* all creatures. The result is a diminution of distinct agency and voice for the non-human creatures and the potential for them to need their relationship to God to be mediated by the human worshipper. Yet this is at least partially ameliorated by the extra attention each element gets. Francis lingers on a smaller number of fellow creatures but develops each one in more detail. Throughout the list, there is interplay between the creatures being the instruments of God ("You [God] give light through him [the Sun]") and the creatures having their own agency ("who brings the day").

Fourth, the creatures are all addressed with familial terms ("Brother Sun, Sister Moon"), powerfully emphasising the bonds shared between humans and other creatures. This is not simply a loose community united by proximity or shared interests, but a close circle united in strong ties of mutual heritage, gift and

[15] A translation of the Canticle by Bill Barrett is attached as Appendix B.

obligation. Yet all those named are "inanimate" objects or elements, rather than animals. The creation family to which we belong is not simply the family of life, but of all creatures. Nonetheless, non-human animal life is not entirely absent, since the longer descriptions of each element generally highlight the usefulness of that sibling for living creatures, not just for humans. The familiarity of other animals seems almost assumed *a fortiori* if even the wind and water are our siblings.

The one place this sibling pattern is modified is for "our sister Mother Earth". This maternal metaphor was very common in the period,[16] perhaps making the phrase sound less odd to medieval ears than it might to readers on the far side of the historical disenchantment described by Max Weber.[17] Yet the double relationship also underscores the close ties between the Earth and humanity as terrestrial creatures whose origin and destiny is dust. The agency of Mother Earth is also more extensive than other elements; she feeds, rules and produces. Together with the double familial relationship, this extended agency highlights the Earth as having a particularly prominent place in the community of creation, being not only the (literally) foundational context for all other earthly beings but intimately involved in the various processes of life. This cherishing of earth resonates with the creation narrative in Genesis 2, where not just humanity but also the trees and all the animals of the field and the birds of the air are formed from the soil or earth (*'adamah*; vv. 7, 9, 19).

Fifth, each of the elements not only exists as a conduit of praise for God, but also receives admiration for their beauty, usefulness or analogy to God (e.g. Brother Sun bears the likeness of God; sister Mother Earth "rule us"). The stark uniqueness of the Creator as recipient of all creaturely worship in the introduction still leaves room for glowing commendations all round. Where the Creator is intimately bound to creatures, then appreciating the latter brings glory to the former. The song thus embodies a spirituality that is open to beauty, analogy and creaturely appreciation rather than a strict and ascetic iconoclasm. Contemplation of creaturely realities is an aid to devotion rather than a distraction or dangerous temptation.

[16] Arguably, the metaphor has scriptural roots in Romans 8.22.
[17] Max Weber, *The Sociology of Religion* (trans. Ephraim Fischoff; Boston: Beacon Press, 1971 [1920]).

Sixth, the duality of heaven and earth as organising principles has given way to a medieval menagerie of astronomical bodies, the four classical elements, humanity, and death. What Hebrew thought referred to as heaven and earth and the New Testament as 'all things' (*ta panta*) finds expression here in the four classical elements: earth, air, fire and water. Yet these are then supplemented with humanity on the one hand and on the other, surprisingly, death.

This is the seventh and possibly most striking new member of the line-up: sister Death. According to tradition, St Francis composed all but the final stanza in 1224, adding the tribute to (and through) death on his own deathbed in 1228.[18] Whether or not this account is reliable, including this gloomy figure amidst a song so filled with references to light fits with the trend we noted in the earlier texts to include events that may seem destructive as also being capable of contributing to the praise of the Creator. All three songs invite meditation on whether experiences that may seem negative could nonetheless bring glory to God. The inclusion of death amongst the creatures also challenges any simplistic notion that death and decay have no place in a world created good, though it does also raise questions about the eschatology implicit in the song's final lines.[19]

Awakening to the community of creation

These three compositions share a common central theological intuition: humanity is but one creature amongst a rich profusion of good beings who have received their existence from and owe their praise to a divine Creator.

This perspective has numerous consequences for ecological ethics, including animal ethics.[20] For our current purposes, however, it could make a significant contribution (and readjustment) to the Christian sense of identity. Adopting this view, one of the core principles of theological ethics must be that we are not alone in

[18] See Paschal Robinson, "St Francis of Assisi" in *The Catholic Encyclopedia* Vol. 6 (New York: Robert Appleton Company). Online: http://www.newadvent.org/cathen/06221a.htm. Accessed June 2016.

[19] Jürgen Moltmann reflects at length on the positive role of death in creaturely reality and how this nuances scriptural references to death as the unnatural enemy of God and humanity. *The Coming of God: Christian Eschatology* (trans. Margaret Kohl; Minneapolis: Fortress, 1996 [1995]), 77-95.

[20] For a considerably more detailed exploration of the theological aspects of the relation between humans and other animals, see David Clough, *On Animals: Volume I Systematic Theology* (T&T Clark, 2012), as well as the collection of essays edited by David Clough and Celia Deane-Drummond, *Creaturely Theology: God, Humans and Other Animals* (London: SCM, 2009).

the universe. We humans are but one member of the choir exhorted into praise of the Creator. That trees and hills and sun and moon all exist to praise God places us in a relationship to them mediated by our common worship. The universality of a creaturely ordering towards worship reveals the dignity of all people (and all beings). If our neighbours are also our co-worshippers, who are we to disrespect or disregard them? How can we see ourselves in competition or see them as merely objects to be exploited? What does it mean that we silence the voices of so many of our co-worshippers? When climate change threatens our future, this includes the future of species and ecosystems both proximate and more distant from human societies. Understanding ourselves as members of a community that extends well beyond the boundaries of *homo sapiens* prevents our concerns from becoming exclusively anthropocentric.

We are dependent upon other species and ecosystems for our task of praise and so we join with them as one, rather than just standing over against them in privilege and distinction. Of course, a parallel socio-economic point can be made from the fact that in Psalm 148 both kings and babies, princes and paupers are to join together in praise. No one can consider another worshipper irrelevant or expendable. The powerful depend upon the presence and voice of the relatively powerless in order to fulfil our mutual doxological calling. At heart, this calling means that our relationships, both socio-politically and ecologically, are to be characterised more by the pursuit of harmony and cooperation than competition and subjugation.

Thus, our reliance upon other creatures to add their harmonies to the choir of creation is also a metaphor for ecological interdependence. We exist in a relationship of utter dependence upon the proper functioning of the rest of creation, a reality so obvious we rarely consider it. Each breath, each morsel of food, each sip of water relies on a complex web of relations. The fusion of hydrogen atoms in the heart of the sun radiates energy at the right wavelengths and amplitude to reach us in a form that can drive photosynthesis and the water cycle, having first been filtered of dangerous frequencies by stratospheric ozone. This solar energy strikes the surface of the planet and heads back towards space as long-wave radiation; on the way, some of it is trapped by asymmetrical trace gases, ensuring that our planet is not a frozen ball, but that most of it contains liquid water – water that is everywhere in motion and

necessary for plants to produce the oxygen we breathe and the carbohydrates we eat – water that is prevented from stagnating by the tug of the moon, the spin of the earth and the warmth of the sun, and which can be carried on the winds so that life-giving rain falls even far from the ocean – water that flows and carves rocks, carrying nutrients out into the oceans, where they are needed by the microscopic phytoplankton that not only supply half the world's atmospheric oxygen but which also form the basis of the marine food chain.

In any direction we look, we quickly discover that we are very much part of this creation, that we are tied in myriad uncountable ways to the planet on which we find ourselves. Our shelter, clothing and everything we use to make life more comfortable and liveable are derived from what we find around and under us. Indeed, all the atoms that we are and use, from our eyes to our iPhones, are the scattered debris of long dead stars, reformed and refashioned over countless millennia into the complex structures we recognise today. We are, quite literally, star dust.

Sometimes, particularly in an age of rapidly developing technological prowess, we may think of ourselves as so clever as to have risen above non-human creation. We think of ourselves as masters exercising control, as having outgrown our dependence upon the fickleness of nature. Yet even at the peak of our technical knowhow, even at the best of our rocket science, when we put a human being on the surface of another world, we are thrown once more upon our utter dependence upon and participation in the created world. For any astronaut is more aware than most of just how precious and vital simple things like oxygen, water and somewhere to put our bodily waste truly are.

Awakening to the community of creation is more than merely adopting a new set of ideas. As discussed in the Introduction, awakening is a metaphor for a moral renewal, a redirection of attention. Indeed more than just a redirection, an expansion of the very possibility of attentiveness; those asleep do not attend to anything much beyond their own dreams. Awakening to one's membership in a community of life extending beyond the self, beyond the human, offers a fundamental reorientation of priorities and possibilities.

Solidarity is more fundamental than stewardship

A further implication is that this basic interdependence and solidarity with the community of creation precedes any specific human vocation within that community. Sometimes the relationship between humanity and the rest of creation is placed under the guiding concept of *stewardship*, yet our texts suggest that this must remain a *secondary* concept, modifying but not overturning solidarity and dependence.[21] The idea of stewardship as "a vocation of caring responsibility for other creatures"[22] is an important backstop, ruling out all strong versions of exploitation and disregard.

But, as Richard Bauckham points out, despite being a particularly popular and dominant metaphor within evangelical ecological ethics, stewardship is

> not a term the Bible itself uses of the human relationship to the rest of creation, nor was it used in this way by the Fathers, the medieval theologians or the Reformers. Such a use of the term stems only, so far as I know, from the seventeenth century.[23]

Not only is it somewhat novel historically, its scriptural basis is limited. It heavily depends upon a particular reading of Genesis 1.26-28, often removed from its context. It also has some serious negative implications when it is used as a controlling metaphor, as Bauckham goes on to outline.[24] When stewardship is taken as the primary lens though which to interpret the relationship between humans and other creatures, it easily tends towards hubris, implying far greater levels of power and authority residing in humanity than are actually the case. It can imply the absence of divine activity, with human stewardship coming to replace rather than supplement providence. It offers little guidance regarding what exactly the rest of creation needs from humanity, obscuring in the process that we need the earth more than the earth needs us.[25]

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[21] The texts (Psalm 148, *The Song of the Three Children*, and *The Canticle of the Sun*) resonate with various complementary scriptural images of dependence and shared creatureliness. See Genesis 1-2, Job 38-41 and Psalm 103.
[22] Bauckham, *Bible and Ecology*, ix.
[23] Richard Bauckham, "Stewardship and relationship" in *The Care of Creation: Focusing Concern and Action* (ed. R. J. Berry; Leicester: InterVarsity Press, 2000), 99.
[24] As well as in the first chapter of Bauckham, *Bible and Ecology*, 1-12. See also the criticisms of the idea in Michael Northcott, *Environment and Christian Ethics*, 129.
[25] See also John Haught, *The Promise of Nature: Ecology and Cosmic Purpose* (Eugene: Wipf and Stock, 2004), 101: "Our presence enriches and adds considerable value to life on Earth. However, the

Consequently, stewardship, with its potential pitfalls, only makes sense when placed within a broader framework, a wider vision of humanity's relationship to the rest of creation that emphasises our membership of a whole community of creation. Our primary relationship to other creatures is as fellow creatures together, recipients of all that we are and need and can be from the hand of a generous Creator. Whatever else we may go on to say about the place of humanity within creation does not override this fundamental interdependence and solidarity we share with our co-creatures. We do not approach the rest of creation as though we exist prior to and outside of or above it. In Genesis 1, God proclaimed creation "good" six times even before humanity entered the scene. There is no hint that the rest of creation was made simply for humans to use. These creation songs (Psalm 148, *The Song of the Three Children*, and St Francis's *Canticle*) affirm that if creation has a purpose beyond itself, it exists primarily for God rather than for us. Other creatures have their own relationship to God that is prior to and more important than their subsequent relationship to humanity. We share with them this fundamental origin in God and orientation to God. No account of human stewardship truly makes sense until we grasp this.

Lynn White and dominion

The idea of a cosmic choir of interdependent co-worshippers rules out two mistaken approaches: treating nature as itself divine and understating nature's importance. The first mistake reflects a failure to recognise that we may catch glimpses of God's glory through the created order,[26] but we are most in tune with the universe when we join with it in praising our Creator. [27]

The second mistake is far more common in an age of instrumental reason.[28] Rather than overstating the importance of creation, it entails understatement – taking nature for granted or treating it as though it is mere raw materials to be mastered by

concept of dominion or stewardship, important as it is, fails to accentuate that we belong to the Earth more than it belongs to us, that we are more dependent on it than it is on us."

[26] See e.g. Psalm 19.1-4; Romans 1.19-20; see also *Laudato si*' §86.

[27] See also *Laudato si'* §90.

[28] See Theodor Adorno and Max Horkheimer, *Dialectic of Enlightenment* (trans. John Cumming; New York: Herder and Herder, 1972 [1947]).

our technology and used for our projects without considering any broader context or acknowledging its own prior relation to the Creator.

Offering particularly Christian justifications for such exploitation has a long history, drawing heavily upon the idea of humanity's divinely appointed dominion that goes back at least as far as Francis Bacon.

Lynn White's seminal 1967 article 'The historical roots of our ecological crisis' makes the doctrine of dominion the centrepiece of the crisis narrative. White argues western Christian notions of human supremacy opened the way for the rest of the natural world to become disposable to human projects with the advent of modern mechanisation.[29] In particular, he singles out the way the western Christian tradition sharply contrasted both the divine and the human with the rest of creation, emphasising divine and human transcendence and allowing everything else to be disparaged as merely material. This short essay has been significantly influential in shaping ecological ethics. It has helped to generate a widely-shared suspicion of Christianity and Christian ideas in certain segments of the environmental movement, and led some Christian thinkers to want to repudiate the Genesis text altogether.

Various scholars have criticised White's account for downplaying the significance of modernist ideas arising with thinkers like René Descartes and Francis Bacon, for ignoring the role of medieval nominalism after William of Ockham, and for overstating the scriptural warrant for an exploitative conception of dominion.[30] For all its historical and scriptural shortcomings, the thesis still has significant explanatory power insofar as such notions of dominion (often rephrased through various accounts of stewardship) continue to influence conservative evangelical thought, particularly in North America.

Thus, it is important to emphasise that treating other creatures as no more than instruments to serve human ends, or even as rightly always subjected to human decisions and priorities is not a behavioural pattern consistent with the discipline of universal doxology. Joining in the choir of creation invites us into a pattern of

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[29] Lynn White, "The historical roots of our ecological crisis" in *Science* 155.3767 (March 1967), 1203-07. doi: 10.1126/science.155.37671203.

[30] For example, see Charles Camosy, *For Love of Animals: Christian Ethics, Consistent Action* (Cincinnati, OH: Franciscan Media, 2013), 21-26; Celia Deane-Drummond, *Eco-Theology* (London: Darton, Longman and Todd, 2008), 82; and Michael Northcott, *The Environment and Christian Ethics*, 40-85.

thought and action that does not sit comfortably with the exploitation or subjugation of co-worshippers.

This is not to say that we may never make use of other creatures at times. Human interests are not sacrificed entirely in an inversion of false dominion. Indeed, humans are not the only creatures to use other creatures. In making use of other creatures, we are not exercising our particularly human role but are merely being creaturely.[31] The scriptures and the long tradition of reflection upon them places certain limits on the ways that humans may use other creatures, especially other living beings.

If we look at creation and see only resources for our economies, then we are failing to see that "[t]he world is charged with the grandeur of God" as the poet Hopkins put it (echoing the psalms).[32] But once our identity is shaped by the recognition that other creatures are our co-worshippers, then we can no longer worship creation nor treat it like dirt.

Indeed, we should not even treat dirt like dirt, since from dirt we came and to dirt we will return. The first man *'Adam* was made from the dirt, *'adamah*, in Hebrew (Genesis 2.7). *'Adam* from *'adamah*: this Hebrew pun works in English too; 'human' has the same root as 'humus', i.e. soil, dirt. The human from the humus. Both terms are etymologically related to 'humility'. Being properly humble, being close to the dirt, not thinking of ourselves as demi-gods or outside of creation, but rather seeing ourselves as dependent upon and bound together with the rest of creation is central to what it means to be properly human.

Our common home: Belonging to the Earth

In light of these precedents, we can better appreciate the radical implications of Pope Francis beginning with this framing for his encyclical. The Pope invokes Saint Francis' *Canticle of the Sun* in the title and opening line: "Praise be to you, my Lord" (§1). In doing so, he is deliberately adopting and foregrounding a perspective of creaturely solidarity and care. By referring in the opening paragraphs to the Earth as "mother" and "sister" (§§1-2), Francis affirms a familial bond of common origin

[31] Bauckham, *Bible and Ecology*, 19.
[32] Gerard Manly Hopkins, "God's Grandeur" in *Poems of Gerard Manley Hopkins* (ed. W. H. Gardner and N. H. Mackenzie; London: Oxford University Press, 1976), 66.

from God and common purpose in the worship of God, thereby asserting that there is another creature beside humanity who is also beloved of God prior to and even exclusive of us. For Earth to be our mother emphasises human contingency and dependency upon creaturely realities beyond ourselves; we receive life as a gift, ultimately from God, but in an important secondary sense also from other creatures. By emphasising the sharing of life with sister Earth and the welcoming embrace of mother Earth (§1), Francis introduces the key phrase of the whole text, also appearing in the subtitle: "our common home".

This phrase is crucial for the interpretation of the text as a whole. Each word – home, common, and care – bears much weight. First, let us consider "home".

Home: On belonging here

The focus here is on the Earth, not the entirety of creation. *This* planet is our home in a way that Mars or the Moon or Proxima B are not.[33] Francis makes no grandiose claim of human mastery or destiny in the stars; rather, he wants to focus on a concern for the actual lives of earthlings today.[34]

Earth is our *home*. First, this means that we belong here. Humanity is not a destructive virus requiring eradication, as some at the more misanthropic end of the deep ecology movement sometimes claim. A significant theme of the encyclical is "everything in the world is connected" (§16): connections between humans and societies and between species and ecosystems. "All creatures are connected, each must be cherished with love and respect, for all of us as living creatures are dependent on one another." (§42) This means caring for one creature or species requires taking account of its context, its relationships, its dependencies and influences. This necessitates complex thinking capable of connecting the dots between political, economic, cultural and ecological systems.

Yet second, "home" implies the necessity and desirability of investing both emotionally and physically in a space to which one belongs. It implies that this place

[33] Proxima B is the closest Earth-like planet, orbiting Proxima Centuri about four light years away. It was only discovered in August 2016.

[34] Despite frequently speaking of Earth as a complex unified whole, Francis does also acknowledge the significance of specific places for each of us: "The history of our friendship with God is always linked to particular places which take on an intensely personal meaning" (§84). None of us live on Earth *simpliciter*, but on this or that corner of it.

is not a mere way station, holding pen or trial run. We are not interlopers, aching for escape into another world, whether celestial or spiritual.

Nineteenth century German philosopher Friedrich Nietzsche condemned what he saw as Christianity's Platonising tendencies: its hatred of the body, its suspicion of the world, its yearning for release from the prison of mortal existence and flight into a heavenly otherworld.[35] For such a Christianity, the Earth is not and cannot be home.

Such criticism has all too often been quite apt. Yet as I have argued elsewhere,[36] Nietzsche's acerbic critique finds a more suitable target when directed against the long-term influence of Platonism on western Christianity than against the more creation-affirming perspectives found in the canonical Christian scriptures.

In particular, in light of central traditional Christian doctrines of the goodness of the creation, the physical incarnation of the divine Logos, the healing of human bodies and communities in Jesus' ministry, and the redemption achieved through a bloody crucifixion and the bodily resurrection of Jesus, there are ample reasons to expect Christian teaching and practice to hold a high view of both the body and bodily life on earth, and to characterise Christian hope as being hope for the redemption *of* the earth, not redemption *from* the earth.[37]

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[35] See for instance Friedrich Nietzsche, *Beyond Good and Evil: Prelude to a Philosophy of the Future* (trans. R. J. Hollingdale; London: Penguin, 1973 [1886]), Preface, §§28, 47, 191; *Thus Spake Zarathustra: A Book for None and All* (trans. Walter Kaufman; London: Penguin, 1978 [1883-1891]) I.4; and *Twilight of the Idols: or How to Philosophize with a Hammer* (trans. Duncan Large; Oxford: Oxford University Press, 1998 [1889]) III.1; IX.47 and *The Anti-Christ*, (trans. R. J. Hollingdale; London: Penguin, 1990 [1895]) §§21, 51.

[36] Byron Smith, *Vile Bodies: Nietzsche, Christianity and the Body* in *Kategoria* 22-23 (2001). See also Merold Westphal, *Suspicion and Faith: The Religious Uses of Modern Atheism* (New York: Fordham University Press, 1998), 219-82.

[37] See N. T. Wright, *Surprised by Hope: Rethinking Heaven, the Resurrection and the Mission of the Church* (London: SPCK, 2007) and Jürgen Moltmann's *Theology of Hope: On the Ground and Implications of a Christian Eschatology* (trans. James W. Leitch; Suffolk: SCM, 1967 [1965]) for two lengthier explorations of how the doctrine of resurrection in particular shapes Christian hope and ethics in world-affirming ways. See also Oliver O'Donovan, *Resurrection and Moral Order: An Outline for Evangelical Ethics* (Second edition; Leicester: Apollos, 1994 [1986]), 14-15: "Before God raised Jesus from the dead, the hope that we call 'gnostic', the hope for redemption *from* creation rather than for the redemption *of* creation, might have appeared to be the only possible hope. 'But in fact Christ has been raised from the dead…' That fact rules out those other possibilities, for in the second Adam the first is rescued. The deviance of his will, its fateful leaning towards death, has not been allowed to uncreate what God created. […] The resurrection carries with it the promise that 'all shall be made alive'. The raising of Christ is representative, not in the way that a symbol is representative, expressing a reality which has an independent and prior standing, but in the way that a national leader is representative when he brings about for the whole of his people whatever it is, war or peace, that he effects on their behalf. And so this central proclamation directs us back also to the

Some might, however, be reticent to accept this insistence on belonging to a "home". The idea of being "aliens and strangers" (such as in 1 Peter 2.11) may be seen as undermining a vision of the earth as home. Because this poses a potential (albeit ultimately unfounded) challenge to the primacy of "home", it is worth commenting on in more detail. However we are to understand references to "aliens and strangers", it is not by imagining or acting as though we were something other than earthly.

At home or aliens and strangers? An excursus

On this theme, Augustine of Hippo writes movingly of the *civitas Dei peregrina*, the pilgrim City of God.[38] By this, he refers to that society of people scattered among the nations on earth who love God more than self, who glory in God, rather than seeking their own glory, who confess Christ and yearn for home, finding themselves homeless wanderers in this world. Indeed, the Latin term *peregrina*, often translated "pilgrim" might perhaps be better rendered "resident alien" or "sojourner". It is a word closer to the experience of Tom Hanks in *The Terminal* than the merry pilgrim-cum-tourists of Chaucer's *Canterbury Tales*.

The City of God is contrasted with the Earthly City, which represents the society organised around common objects of love of lesser worth than God.[39] For Augustine, these cities are not physically located in different places, but represent two incommensurate modes of being in the world and the two communities those

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message of the incarnation, by which we learn how, through a unique presence of God to his creation, the whole created order is taken up into the fate of this particular representative man at this particular moment of history, on whose fate turns the redemption of all. And it directs us forward to the end of history when that particular and representative fate is universalized in the resurrection of mankind from the dead. 'Each in his own order: Christ the first fruits, then at his coming those who belong to Christ.' The sign that God has stood by his created order implies that this order, with mankind in its proper place within it, is to be totally restored at the last." See also *Laudato 'si*, §100.

[38] Augustine, *Concerning the City of God Against the Pagans* (trans. Henry Bettenson; London: Penguin, 2003). Oliver O'Donovan has written extensively on this idea and on the significance of the broader argument in Book XIX of City of God for the development of western political thought. See *Common Objects of Love: Moral Reflection and the Shaping of Community* (Eerdmans, 2009), "Augustine's *City of God* XIX and Western Political Thought" in *The City of God: A Collection of Critical Essays* (ed. Dorothy F. Donnelly; New York: Lang, 1995), 135-49 and "The Political Thought of *City of God* 19" in Oliver O'Donovan and Joan Lockwood-O'Donovan, *The Bonds of Imperfection: Christian Politics, Past and Present* (Michigan: William B Eerdmans, 2003), 48-72.

[39] Augustine, *City of God*, XIX.29.

differing modes generate. In both cases, those who belong to one community find themselves alienated from the other.

In Augustine's thought, to confess Christ is to put oneself on the wrong side of those powers that crucified him, and so to find oneself excluded from the earthly city with him. So for the inhabitants of the City of God to be aliens and strangers is a moral and spiritual alienation from the dominant mode of being in the world, not a displacement from the physical location where one belongs.

Thus to be an alien and a stranger is to feel not at home in a society where the rich devour the poor, where the good creation is treated as disposable, where Christ is crowned with thorns and anointed with spittle. It is to belong to a different way of being human, a community that is joined together by a higher love, a community discontent with the current dominant order and longing for the establishment of God's will on earth as it is in heaven.

From this perspective, the home of believers is not elsewhere, it is else*when*. Rather than seeking a different home, inhabitants of the City of God await the time when the heavenly reality of divine rule is visibly manifest on this planet.

Consequently, when Christians are called "aliens and strangers" this is less like the Jewish exiles in Babylon, who pined for Zion and could not sing for grief,[40] and more like Abraham. Abraham and his immediate descendants are repeatedly called "aliens" and "strangers",[41] though they are *already* living in the land that God had promised them. They are thus strangers who are not out of *place*, but out of *time*; they belong to this land and this land belongs to them, but as yet only by promise.

By adopting the language of "home" to refer to our earthly existence, Pope Francis is thereby affirming that the church's – and ultimately humanity's – hope and destiny are bound up with the future of the earth, that we belong here. By locating this concept within Christian discourse and belief, he is not seeking to imply that only Christians are at home on earth, but to undercut some specifically Christian objections to caring too deeply about this place. This is part of what he means by saying our *common* home: it is common to those inside *and* outside the church. Francis explicitly directs the encyclical to all of humanity and seeks dialogue that

[40] Psalm 137.
[41] Genesis 17.8; 21.23, 34; 23.4; 26.3; 28.4; 37.1.

goes beyond believers to include all of humanity (§§3, 63-64). Rather than emphasising Augustine's incompatibility between the two cities, Francis offers a model of dialogue and mutual benefit, brought together by the shared space of a planet in peril and in need of care.

Thus, the language of home is both a comfort and a challenge. The earth-as-home reassures those who feel out of place that their labours for the betterment of the planet are not in vain. But the idea also refuses to let us get comfortable with our experiences of alienation, challenging us to care for this home.

Whose home? Anthropocentrism and the broadening of family

From the encyclical's opening lines with their prominent invocation of the creaturely doxological tradition of Psalm 148 through to the *Canticle of the Sun*, Francis is deftly downplaying any vigorous or thoroughgoing anthropocentrism, such as can frequently be found in many previous papal documents and Catholic thought more broadly.[42] Although not able to abandon the language altogether, throughout this encyclical, Francis spends far more time criticising the serious deficiencies of various forms of anthropocentrism than mounting a defence of a proper version of it.

He still maintains a chastened anthropocentrism and never outright condemns the notion of human pre-eminence. Nevertheless, this is subjected to considerable hedging on every side with criticisms of "tyrannical" (§68), "distorted" (§69), "modern" (§115), "excessive" (§116) and "misguided" (§§118-19, 122) versions of anthropocentrism, rejecting any notion of dominion as "mastery over the world" (§116) that can then be treated as "raw material that can be hammered into shape" (§115). The most direct and sustained rejection of dominion theology comes in §67:

> We are not God. The earth was here before us and it has been given to us. This allows us to respond to the charge that Judaeo-Christian thinking, on the basis of the Genesis account which grants man "dominion" over the earth (cf. *Gen* 1:28), has encouraged the unbridled exploitation of nature by painting him as domineering and destructive by nature. This is not a correct

[42] For a fuller account of anthropocentrism in Christian (including Catholic) ecotheology, see Michael Northcott, *The Environment and Christian Ethics*, 125-41. Ryan Patrick McLaughlin argues that Catholic anthropocentrism is rooted in and limited by the Thomistic tradition: "Thomas Aquinas' Eco-Theological Ethics of Anthropocentric Conservation" in *Horizons* 39/1 (2012), 69-97.

> interpretation of the Bible as understood by the Church. Although it is true that we Christians have at times incorrectly interpreted the Scriptures, nowadays we must forcefully reject the notion that our being created in God's image and given dominion over the earth justifies absolute domination over other creatures. […] God rejects every claim to absolute ownership.

In its place, he wants to put what we might call an ecological anthropocentrism, one in which the interconnections and interdependence of life on earth is noticed, appreciated and respected: "Human beings, endowed with intelligence, must respect the laws of nature and the delicate equilibria existing between the creatures of this world" (§68).[43] Humanity still has a distinct vocation and dignity, not merely "one being amongst others, the product of chance or physical determinism" (§118). His fear is that a reduction of anthropology to merely one being amongst others will undermine responsibility, removing from us the imperative to take up God's summons to care.

Yet this fear is perhaps overstated. It is quite possible to conceive of humanity as having a particular divine vocation, one in which we have a distinctive responsibility for care of other creatures, without needing to insist on humanity as always being the centre of God's creative purposes. Nonetheless, his main target here seems to be reductionist biological determinism in which all beings are passive victims of our genes and environmental conditioning, rather than a Christian ecological ethic that seems to overcome anthropocentrism. Indeed, in §90 he warns against a form of environmentalism that only cares about the suffering of non-human creatures while ignoring or dismissing the needs of the poor. Such environmentalism would go well beyond an eco-social consciousness and into outright misanthropy.

Indeed, for Francis this reflects a second concern with abandoning anthropocentrism: doing so may justify the ongoing neglect and oppression of the poor, meaning the particular dignity of each human person might be lost (§119).[44] Yet once more, while the focus on the plight of the poor and the interconnections

[43] The notion of delicate equilibrium is somewhat outdated in ecology, which has shifted its attention to dynamic homeostasis. Nonetheless, Francis's point is still clear. It is interesting that a few such scientific infelicities of expression remain in the final document: for instance §§23-24, where the text confuses acidity with acidification, speaks only of future climate impacts, and arguably understates the level of scientific consensus regarding anthropogenic attribution of recently observed warming.
[44] Including those not yet born (§120).

between the abuse of the earth and the oppression of people are strong and laudable themes in the encyclical,[45] it is possible to affirm the dignity and worth of human persons without privileging this, in an hierarchical fashion, over the dignity and worth of other life.

As much as some may be disappointed that the encyclical does not go further in repudiating anthropocentrism, it nonetheless represents significant development in official Catholic teaching concerning human-animal relations. Francis foregrounds shared doxological delight, ecological interdependence and the intrinsic beauty of each thing being itself (§11-12). He makes it clear that the dire diagnosis of multiple interconnected crises (of which the climate crisis is but one aspect) is not just a problem for human individuals or societies, but for all life, and ultimately for God too: "Because of us, thousands of species will no longer give glory to God by their very existence, nor convey their message to us. We have no such right." (§33) On this basis, Francis is able to build the dignity and worth of other species on foundations less vulnerable to the shifting demands of human economies and projects than notions of stewardship or bald pragmatism.

A common home: Sharing is caring

This planetary home is common to all of us, and to all life. The crises we face are not merely an accumulation of local issues, but genuinely span and threaten all life. Thus the interconnected web of life is no mere spiritual ideal for inspiring meditation, but an ecological and socio-political reality that means we sink or swim together.

So our grasp of the intrinsic beauty and delight of each thing being itself must expand also into noticing the network of dependencies. These are connections which must be sought out and understood. Francis therefore affirms the importance of empirical research into ecosystems and biology, as well as interdisciplinary and integrative fields of study such as ecological economics (§135).

But more than this, perhaps the even graver threat to the necessary unity (or at least complementarity) in caring for our common home is not between species but

[45] An illustrative example of this consistent connection made throughout the document is found in §48: "The human environment and the natural environment deteriorate together; we cannot adequately combat environmental degradation unless we attend to causes related to human and social degradation."

within *homo sapiens*: the divisions of nationality, class, gender, race, age, ideology and so on. "We need to strengthen the conviction that we are one single human family." (§52)

That we share a common home means that none have exclusive rights. My claims to private property are relativised by the needs of my neighbour: "The Christian tradition has never recognised the right to private property as absolute and inviolable, and has stressed the social purpose of all forms of private property" (§93).[46] Yet the virtually ubiquitous legal and political prioritisation of capital's profit over human need represents the failure of human politics through its subjugation to economics (§§54-56). The ideology of the free market in practice means giving free reign to the interests of the already powerful over those of the poor, including the poor Earth.

Throughout the letter, Pope Francis – true to his namesake – consistently links the plight of the poor to the plight of earthly creation: "A sense of deep communion with the rest of nature cannot be real if our hearts lack tenderness, compassion and concern for our fellow human beings" (§91). He has no time for a misanthropic environmentalism, nor for an ecologically-blind social justice (§92). Cruelty is infectious: it will spread from one sphere to another. But so is compassion. It begins in God and is to spread into every aspect of our hearts and lives.

He is sensitive both to the ways that ecological degradation causes greater suffering to the poor than anyone else, and to how inequality and social exclusion in turn drive ecological degradation; the world's wealthy consume more than the planet can bear (while upholding a system of rapacious and technocratic capitalism that subverts political authority for the common good) and the masses of poor suffer first and most as a result.

As a positive alternative to this fracturing, Francis reaffirms the principle of the common good (§§156-58), which is "the sum of those conditions of social life which allow social groups and their individual members relatively thorough and

[46] Continuing the Catholic tradition's emphasis on duties, Francis continually contrasts freedom understood rightly (using one's gifts and personality, and executing one's duties, for the common good) with a relativistic capacity to pursue one's own desires or choices. See, most recently, *Amoris Laetitia: On Love in the Family* (Post-Synodal Apostolic Exhortation) (*The Vatican*, 19 March 2015) 25-26: "it is easy nowadays to confuse genuine freedom with the idea that each individual can act arbitrarily". Online: http://w2.vatican.va/content/francesco/en/apost_exhortations/documents/papa-francesco_esortazione-ap_20160319_amoris-laetitia.html. Accessed July 2016 .

ready access to their own fulfilment" (§156).[47] When applied to a world riven with injustices, a commitment to the common good is synonymous with "a summons to solidarity and a preferential option for the poorest of our brothers and sisters" (§158), who are the ones most vulnerable to being excluded from all shared goods.

More than this, the common good must embrace future generations and so is the basis for a concern for intergenerational justice. This is especially important when it comes to long term cumulative challenges like climate change. As Francis says, "The climate is a common good, belonging to all and meant for all" (§23). This "all" includes both the world's poor and future generations (and given the discussion above, arguably it also ought to include other species).

This perspective, grounded in Francis' articulation of Christian identity and practice, provides strong reasons to resist the temptation of intergenerational and international buck passing that have been articulated by Stephen Gardiner and which were discussed back in Chapter One. Yet a theoretical outlook that is attentive to the needs of proximate and distant neighbours in pursuit of the common good must be matched by a praxis that is able to put these commitments into action. What are the attitudes, behaviours and communities that might able to activate genuine care beyond the boundaries of the immediate?

That the Earth is our *common* home ultimately means that partial responses or merely technocratic-bureaucratic quick fixes will fail. A wholesale transformation and reintegration of human ecology – culture, politics, economics, spirituality – is required if we are to stave off a wholesale transformation and disintegration of planetary ecology.[48] While an exploration of the political, economic and social implications of the encyclical remains beyond the scope of this thesis (though of course critically important for any genuine attempt to implement its teaching), let us turn in our remaining discussion to one aspect of this integrative task that relates most closely to our concern with the possibilities of ethical deliberation today. That

[47] For the definition of common good, Pope Francis quotes Pope Paul VI, *Gaudium et Spes* §26.
[48] Francis opens *Laudato si'* with confession, pointing to "[t]he violence present in our hearts, wounded by sin" that is reflected in the soil, the water, the air, and all forms of life (§2). Elsewhere, this has led him to characterise the ecological crisis, when linked with rising inequality and a breakdown in solidarity, as fundamentally a "human crisis". See "Address of the Holy Father Francis: Vigil of Pentecost with the Ecclesial Movements" (Saint Peter's Square, Saturday 18th May 2013) Online: http://w2.vatican.va/content/francesco/en/speeches/2013/may/documents/papa-francesco_20130518_veglia-pentecoste.html.

is, let us focus on the way that Francis articulates the interconnections between the inner and the outer worlds, between belief and practice, stance and habit.

Coming home to care: A journey into joy, grief and action

With "our common home" as the nominal phrase, the subtitle's critical verb that captures our basic stance and task is "care". This is what we are to do with and for our common home.

This has multiple levels of resonance. First, as a synonym for love, it draws the ethics of this ecological encyclical into the centre of the Christian ethical tradition.[49] Second, as a synonym for stewardship (now carefully re-contextualised within a more fundamental creaturely solidarity), it points towards the particular human vocation within the community of creation that we call home. Care has *always* been the appropriate human stance towards the world and our fellow occupants within it. Third, in the contemporary context of ecological and climatic crises, care highlights not just an active service of taking care, but an affective response of emotional engagement, a priority for today that is to be our *concern* in this time and place.

As we discussed back in chapter one, awakening to the scale, nature, danger and complexity of the climate crisis typically precipitates a range of decidedly uncomfortable and generally undesired emotions: fear, sorrow, guilt, helplessness, anger, betrayal, confusion, horror. Collectively, ecological psychologists Joanna Macy and Chris Johnstone call these "pain for the world".[50] They write, "Pain for the world, a phrase that covers a range of feelings, including outrage, alarm, grief, guilt, dread and despair, is a normal, healthy response to a world in trauma."[51] It is right and proper that the trauma of climate change produces emotional trauma in otherwise

[49] Francis thus often quotes his predecessor Pope Benedict XVI's exhortation that love must affect relationships not only between individuals, but also social, political, and economic macro-relationships. Pope Benedict XVI, Caritas in Veritate*: On Integral Human Development in Charity and Truth* (*The Vatican*, 29 June 2009). Online: http://w2.vatican.va/content/benedict-xvi/en/encyclicals/documents/hf_ben-xvi_enc_20090629_caritas-in-veritate.html. Accessed August 2016. See *Laudato si'* §231.
[50] Joanna Macy and Chris Johnstone, *Active Hope: How to Face the Mess We're in without Going Crazy* (Sydney: Finch Publishing, 2012), 57-84.
[51] Macy and Johnstone, *Active Hope*, 67.

healthy people. Such responses are common and appropriate, and ought not be suppressed or avoided.

Yet in the face of these difficult, uncomfortable and frequently overwhelming emotional experiences generated by awakening to our climate crisis, we are tempted to fall back upon our familiar but ultimately maladaptive coping strategies that keep that pain for the world at arm's length and hold off the paralysing effects of being engulfed by our fears.

Pope Francis holds out an alternative possibility: to walk into that pain with our eyes and heart open, knowing that it will require a great work of grieving and a burden of concern, but with the confidence and resilience that comes from an activated Christian identity amidst a community of faith, love and hope.

The invitation to care for our common home is an invitation to suffer for its sake. Not just to look after it, to cease harming it, to seek to repair it where possible or ameliorate the pain where it is not, but also to shoulder the emotional load of a deep affective concern for the plight of our neighbour. The stance of care thus leads into an embrace of our pain for the world, a relinquishing of the maladaptive coping strategies that kept that pain manageable and in their place a commitment to a process of grieving both personally and communally. So how is this possible?

I shall explore "care" further through three stances (or virtues). First, joy, which, because it entails connectivity and solidarity, must overcome the idolatry of consumerism. Second, groaning – the eager unified yearning of all creation and God for renewal. Third, honesty, which is required both for acknowledging healthy grief and for undertaking careful deliberation in a community that privileges deep affective concern for neighbours.

Joy

Care must be grounded in a solid and ever-renewed joy and delight in the goodness of creation. We only grieve that which we love. We only love that which we know to be good. To nurture a heart capable of love (and so healthy grief), it is important to get hands and feet dirty in affirmations of creaturely dependency and delight.

This may take the form of gastronomy or gardening, meditation or mountaineering, snorkelling or sailing, bee-keeping or bushwalking, etymology or extreme sports, art or animal companionship, dawn-watching or star-gazing, or any of dozens and dozens of other practices that maintain our connection to our bodily and creaturely reality.[52]

Such disciplines – somewhat contemptuously labelled hobbies by those who have not grasped their necessity for mental, physical and spiritual health – are best pursued within the context of a worshipping community that shapes and articulates them as expressions of and grounds for praise and thanksgiving. The disciplines of thanksgiving and praise, meditation and immersion in creaturely contexts and realities can sustain a fundamental love for and delight in the wonder of creation, through keeping us grounded in our human condition as creatures in a community of life. Indeed such a context can help to avoid turning these activities into merely the accumulation of experiences to be consumed and displayed as trophies for social status.

Pope Francis, reflecting on the practices and attitude of Saint Francis, summarises this stance: "Rather than a problem to be solved, the world is a joyful mystery to be contemplated with gladness and praise." (§12) Only by seeing the world as good do we bother caring for it. Not just good for us in a pragmatic survival sense, but good in itself, a delight, a gift that reveals the Creator's own goodness – and good too as family, as home, as our proper creaturely context and companion. Francis urges a solidarity of delight (and grief) not just a cool crunching of numbers. Indeed, throughout the document, one of the major themes is a deep antipathy to instrumentalist thought, whether in dreams of technological mastery over the natural order or in capitalist accumulation of wealth (and power) or in the kind of calculative pragmatism that passes for much of allegedly "green" thought.

[52] The psychological benefits of such activities for mental health in an urbanized and degraded environment are explored by Sally Weintrobe: "On the love of nature and on human nature: restoring split internal landscapes" in *Engaging with Climate Change: Psychoanalytic and Interdisciplinary Perspectives* (ed. Sally Weintrobe; New York: Routledge, 2013), 199-213. For a sustained theological treatment of the ethical significance of embracing embodiment and the materiality of creaturely existence, see chapter 8 of Brian Brock, *Christian Ethics in a Technological Age* (Grand Rapids, MI: Eerdmans, 2010), 320-73.

> If we approach nature and the environment without this openness to awe and wonder, if we no longer speak the language of fraternity and beauty in our relationship with the world, our attitude will be that of masters, consumers, ruthless exploiters, unable to set limits on their immediate needs. By contrast, if we feel intimately connected with all that exists, then sobriety and care will well up spontaneously. The poverty and austerity of Saint Francis were no mere veneer of asceticism, but something much more radical: a refusal to turn reality into an object simply to be used and controlled. (§11)

The toxic idolatry of consumerism: false joy

This quote highlights one of the single largest suppressors of such connectivity: consumerism. The Pope's invoking of Saint Francis's embrace of voluntary poverty (and, arguably, his attempts to humble some of the trappings of the papacy) is not a form of self-harm or a pursuit of spiritual worthiness, but an expression of solidarity with the poor and resistance to the "toxic idolatry of consumerism".[53] That is, reducing consumption in a hyper-consuming society is not only about reducing one's personal impact, "living simply so that others can simply live" as the slogan goes, it is even more fundamentally a necessity of Christian discipleship in the face of a near ubiquitous and powerful cultural idolatry.[54] Even if we faced no ecological limits, consumerism would still be a false god, threatening the primacy of Christian loyalty and promising a hollow and destructive identity in becoming what we consume. Life does not consist in the abundance of possessions and the love of money is a root of

[53] This phrase is taken from section 1.7.A of the *Cape Town Commitment*, a public statement signed by thousands of evangelical leaders from around the globe and which affirms that "Creation care is thus a gospel issue within the Lordship of Christ." Lausanne Movement, *Cape Town Commitment: A Confession of Faith and a Call to Action*. (Cape Town: Lausanne Movement, 2010). Online: https://www.lausanne.org/content/ctc/ctcommitment.

[54] William Cavanaugh has noted the pervasiveness of "idolatry" as a marshalling category in Pope Francis's public statements. His first encyclical, *Lumen Fidei*, used "idol(s)" or "idolatry" 14 times. See William T. Cavanaugh, "Return of the Golden Calf: Economy, Idolatry, and Secularization since *Gaudium et Spes*" in *Theological Studies* 76/4 (2015): 698-717. Francis typically links idolatry with the pursuit of profit or "the enticement of money" (*Lumen Fidei* §13); financial speculation (*Evangelii Gaudium* §56); a misplaced trust in economic theory (*Evangelii Gaudium* §54); "frivolous pleasures" (*Evangelii Gaudium* §2); and consumption itself (*Evangelii Gaudium* §55 and *Laudato Si'* §203). See *Evangelii Gaudium: Apostolic Exhortation on the Proclamation of the Gospel in Today's World* (The Vatican, 24 November 2013). Online: http://w2.vatican.va/content/francesco/en/apost_exhortations/documents/papa-francesco_esortazione-ap_20131124_evangelii-gaudium.html. Accessed August 2016.

all kinds of evil (Luke 12.15; 1 Timothy 6.10). Such familiar scriptural injunctions stand in stark contrast to the dominant cultural norms of our age.[55]

Rowan Williams, in his essay "Climate crisis: fashioning a Christian response", pushes this line of thought further.[56] He argues that the climate crisis raises fundamental questions about what it means to be human, indeed what it means to live as a creature amidst an interconnected series of creaturely relationships. For Williams, to be human is fundamentally to be a creature called into care, a theme deeply resonant with the argument of Francis and which I have elsewhere traced throughout Williams' work.[57] In this essay, Williams turns to the Noah story in Genesis to explore a scriptural perspective on the matter, arguing that "the biblical picture presents us with a humanity that can never be itself without taking on the care and protection of the life of which it's a part."[58] He argues that resisting consumerism in acts of creaturely care and delight are first and foremost about shaping our hearts and lives in ways that open up the space for ethical deliberation rather than the significant achievement of reducing the global human footprint. Personal eco-piety can easily become yet another dysfunctional coping mechanism, suppressing the knowledge of the systemic causes of climatic disruption through self-righteous one-upmanship or tokenistic anxiety and guilt-management. But when such acts are taken as steps on a path of discipleship, seeking liberation from the distorting constrictions of consumerist ideology and a reshaping of the moral imagination, then they regain genuine value.

Indeed, Williams goes further in another essay, pointing out that greed is not simply a personal vice indulged by individuals, or even a cultural tendency in an advertising-soaked society. It is the expression of a profound failure of identity, a mistaken and destructive search for invulnerability.

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[55] For an excellent treatment of the scriptural material concerning greed, see Brian Rosner, *Greed as Idolatry: The Origin and Meaning of a Pauline Metaphor* (Grand Rapids, MI: Eerdmans, 2007). For a cultural and theological critique of Christian complicity in a consumerist age, see Vincent Miller, *Consuming Religion: Christian Faith and Practice in a Consumer Culture* (London: Continuum, 2005).

[56] Rowan Williams, "Climate Crisis: Fashioning a Christian response" in *Faith in the Public Square* (London: Bloomsbury, 2012), 196-207.

[57] See Byron Smith, "The Humanity of Godliness: Spirituality and Creatureliness in Rowan Williams" in *On Rowan Williams: Critical Essays* (Eugene, Oregon: Cascade, 2009), 115-40.

[58] Rowan Williams, "Climate Crisis", 196.

> [The Global Financial Crisis that came to a head in 2008] was not just about greed. […] Acquisitiveness is, in the Christian monastic tradition, associated with pride, the root of all human error and failure: pride, which is most clearly evident in *the refusal to acknowledge my lack of control over my environment*, my illusion that I can shape the world according to my will. And if that is correct, then the origin of economic dysfunction and injustice is pride – a pride that is manifest in the reluctance to let go of systems and projects that promise more and more secure control, and so has a bad effect on our reasoning powers. This in turn suggests that economic justice arrives only when everyone recognizes some kind of shared vulnerability and limitation in a world of limits and processes (psychological as well as material) that cannot be bypassed. We are delivered or converted not simply by resolving in a vacuum to be less greedy, but by understanding what it is to live as an organism which grows and changes and thus is involved in risk. We change because our minds or mindsets are changed and steered away from certain powerful but toxic myths.[59]

The pride that seeks control, and its flipside, the fear of vulnerability, are, Williams suggests, the roots from which greed springs. So resisting consumerism is both the path towards and the result of the process of a re-humanising journey into proper creaturely humility.

Groaning for new creation: Resurrection hope in Romans 8

Pain for the world is not simply real, healthy and widespread, it is also scriptural and Spiritual. In Romans 8.18-24, the apostle Paul paints a vivid picture of creation groaning, as though in childbirth, in great pain, in bondage to decay.[60]

First, there is creation itself, waiting with eager longing, yearning for the day when the current conditions of frustration and decay are no more. "The creation *itself*

[59] Rowan Williams, "Ethics, Economics and Global Justice" in *Faith in the Public Square* (London: Bloomsbury, 2012), 212-13 (emphasis in original).

[60] Amongst many readings of this passage in an ecological context, see Brendan Byrne "An Ecological Reading of Rom 8.19-22: Possibilities and Hesitations" in *Ecological Hermeneutics: Biblical, Historical and Theological Perspectives* (eds. David G. Horrell, Cherryl Hunt, Christopher Southgate and Francesca Stavrakopoulou; London: Continuum, 2010), 83-93 and Richard Bauckham, *Bible and Ecology: Rediscovering the Community of Creation* (London: Darton, Longman and Todd, 2010), 95-101. See also Douglas Moo, *The Epistle to the Romans: New International Commentary on the New Testament* (Grand Rapids, Mi.: Eerdmans, 1996), 506-36 and "Nature in the New Creation: New Testament Eschatology and the Environment" in *Journal of the Evangelical Theological Society* (2006): 449-88. Online: http://www.etsjets.org/files/JETS-PDFs/49/49-3/JETS_49-3_449-488_Moo.pdf.

will be set free": this is not a salvation that is purely for humans.[61] Paul does not envisage being whisked off a dying planet away to a heavenly realm somewhere else. The creation itself is groaning, yearning, hoping. The creation itself is to participate in God's great renewal, of which the resurrection of Jesus was the first taste. In Paul's account, the Christian hope embraces earth as well as heaven.

The second thing groaning is "we ourselves, who have the first fruits of the Spirit, groan inwardly while we wait for […] the redemption of our bodies". Again, the Christian hope is bodily; it is hope for a bodily resurrection that both affirms and transforms physical existence, on the pattern and basis of Jesus' resurrection (see Philippians 3.20-21; 1 Corinthians 15.21-28; Romans 6.5).[62] But more than this, for Paul groaning is a normal, healthy part of the Christian life. Paul is no triumphalist, who thinks that discipleship consists of ever-greater thrills and bliss; on the contrary, to follow a crucified messiah means the fundamental experience of the believer is one of frustration (see 2 Corinthians 4.1-11), which is the necessary precondition for hope, for who hopes for what is already present, already manifest? Therefore groaning is spiritual, a deep yearning desire for all that is wrong to be set right. Furthermore, according to verse 23, that deep desire is inspired by God's Holy Spirit, since it is those who have tasted the first fruits of that Spirit who groan. Paul's picture of mature spirituality is in one sense to be less content, less satisfied, less ready to make peace with a broken world as though such brokenness is acceptable.[63]

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[61] Bauckham, *Bible and Ecology*, 96-98 argues against those (such as Moo, "Nature in the New Creation", 460-62) who identify the "futility" of verse 20 with a drastic change across creation due to the curse of the fall in Genesis 3. Instead, Bauckham suggests that Paul's perspective is much closer to that found in many of the prophets, in seeing Earth as being in mourning for human sin (e.g. Joel 1.10-12 and 17-20), that is, ecological disorder mirrors the moral disorder of the human community.

[62] An extensive historical reconstruction of the beliefs of the early church concerning resurrection, arguing for a consistent pattern of transformed materiality is found in N. T. Wright, *The Resurrection of the Son of God. Christian Origins and the Question of God, Volume 3* (London: SPCK, 2003). See also Anthony C. Thistelton, "Realized Eschatology at Corinth" in *New Testament Studies* 24 (1978): 510-26.

[63] Cf. Jürgen Moltmann, *Theology of Hope*, 7: "The raising of Christ is not merely a consolation to him in a life that is full of distress and doomed to die, but it is also God's contradiction of suffering and death, of humiliation and offence, and of the wickedness of evil. Hope finds in Christ not only a consolation in suffering, but also the protest of the divine promise against suffering. If Paul calls death the 'last enemy' (I Cor. 15.26), then the opposite is also true: that the risen Christ, and with him the resurrection hope, must be declared to be the enemy of death and of a world that puts up with death. Faith takes up this contradiction and thus becomes itself a contradiction to the world of death. That is why faith, wherever it develops into hope, causes not rest but unrest, not patience but impatience. It does not calm the unquiet heart, but is itself this unquiet heart in man. Those who hope in Christ can no longer put up with reality as it is, but begin to suffer under it, to contradict it. Peace with God means conflict with the world, for the goad of the promised future stabs inexorably into the

Yet not only is creation groaning, not only do believers groan, but the Spirit also groans. In verse 26, where the Spirit intercedes with sighs too deep for words, it is the same Greek word Paul used earlier for our groaning (*stenagmós*): this discontented yearning for the renewal of all things, this deep desire for the resurrection of Jesus to be expanded and applied to all creation, extends into the heart of God. God too groans.

Walking into an experience of deep dissatisfaction and earnest yearning for renewal, far from being alien to Christian thought, is integral to Paul's picture of discipleship. Indeed, Romans 8 suggests that experiencing such yearning is to be aligned with God's own desire. The rest of creation is not merely a backdrop to an exclusively human drama. Paul hints here at wider horizons for those who come to understand themselves not simply as humans, but as creatures in a community of life. This passage invites us as readers to see ourselves as sharing with all creation a fundamental frustration, a desire for our brokenness to be healed, our pollution – internal and external – cleaned up, a desire grounded in God's own desire that all things be made new in Christ.

In Romans 8, the creation groans, believers groan, the Spirit groans: all are yearning for God's promised future in which human bodies will be redeemed in resurrection and all creation liberated from its bondage to decay. Jesus' resurrection is presented as the foundation and pattern for such a hope for the future.

Now Paul is obviously not referring to the current ecological crises, and care must be taken not to simply project our own concerns onto the apostle,[64] but this text does seem to reveal that pain for the world is not a new experience, even if our climate crisis brings a new flavour and urgency to it. The passage also offers an important picture of Christian hope for resurrection that results not in complacent satisfaction or confidence, but in urgent yearning and pain today. Far from being a convenient excuse to avoid difficult matters through offering a cosmic get out of jail free card, Paul's take on resurrection hope is one that leads into passionate care and

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flesh of every unfulfilled present. If we had before our eyes only what we see, then we should cheerfully or reluctantly reconcile ourselves with things as they happen to be. That we do not reconcile ourselves, that there is no pleasant harmony between us and reality, is due to our unquenchable hope."

[64] Byrne, "An Ecological Reading of Rom 8.19-22", 83-93. See also Bauckham, *Bible and Ecology*, 100-101.

deep affective empathy with creation, neighbour and God's own Spirit. Christian hope, far from providing liberation from difficult emotional experiences, is what enables believers to face the full darkness of our situation and still find reasons to act in the presence and promise of God.

Honesty, grief and community

> Our goal is not to amass information or satisfy curiosity, but rather to become painfully aware, to dare to turn what is happening to the world into our own personal suffering and thus to discover what each of us can do about it. (*Laudato si'* §19)

Next we require honesty: honesty with ourselves and with one another about the deep predicament we face; honesty about our share in responsibility for it; honesty about what we may now be called to do. Becoming "painfully aware" Francis calls it. In Chapter One, I discussed some of the many reasons why being honest with oneself about the seriousness of our situation is so complex. Honesty can threaten our sense of identity and challenge dominant cultural narratives via which we orient ourselves. Being honest with one another is also particularly difficult when the news is quite dire and the cultural norm of tacit denial so strong.[65] Particularly in contexts where climate policy has become divisive and acrimonious (as is the case at present in the US and Australia, in particular), the pressure not to raise the issue in contexts capable of handling complex and deep emotions, such as family and close friends, can become overwhelming. Even when it does get raised, there is a narrow range of acceptable topics, which generally does not include sustained discussion of our emotional responses to increasing climatic instability and the failures of our political system to confront the issue adequately.

Honesty is required so that ethical deliberation, when we get to it, can proceed on a basis of our best understanding of reality rather than getting constantly derailed by people maintaining their emotional need to remain in various forms of

[65] See Stanley Cohen, *States of Denial: Knowing About Atrocities and Suffering* (Cambridge: Polity, 2001), especially the discussion of everyday bystanders on pp. 68-75, which outlines many of the social mechanisms that serve to keep inconvenient truths out of public discussion. See also Eviatar Zerubavel, *The Elephant in the Room: Silence and Denial in Everyday Life* (Oxford: Oxford University Press, 2006), 17-32.

denial and other coping mechanisms. Yet honesty is also required so that such a place of careful deliberation can be reached in the first place, as honesty is necessary for the healthy grief amidst which open-hearted care can function.

The process of grieving is complex and worthy of extended discussion in its own right. Yet all accounts emphasise the necessity of honesty in nurturing healthy grief that is capable of internalising discomforting information and finding a renewed capacity to care and engage. Grief is not just for the damage already done, much of it irreversible, but also over lost futures and illusory self-images shattered. As was discussed regarding fears in the previous chapter, so too grief needs to journey from self-regard into a deep affective concern for the plight of our neighbour, being liberated from the prison of the *incurvatus in se* and opened up to the experiences and needs of those around us, including those made largely invisible by inequality, temporal distance or species boundaries.

Once again Francis highlights how creaturely solidarity can expand the horizons of our care and so also of our grief: "God has joined us so closely to the world around us that we can feel the desertification of the soil almost as a physical ailment, and the extinction of a species as a painful disfigurement." (§89) The sense of self expands to embrace the lives of all those to whom my life is connected in myriad ways, including even the life of the soil or of as yet undiscovered species.[66]

This expanded sense of self is not just for other creatures, but also and perhaps especially for our human neighbours: "a true ecological approach *always* becomes a social approach; it must integrate questions of justice in debates on the environment, so as to hear *both the cry of the earth and the cry of the poor*" (§49, emphasis in original). Such expansion of the self takes place within and is nurtured by a community of care and action, one that seeks to be attentive to the cry of the earth and the cry of the poor, as they are two sides of a single groaning: "This is why the earth herself, burdened and laid waste, is among the most abandoned and maltreated of our poor; she "groans in travail" (Rom 8:22)." (§2)

Grief is multiplied and prolonged by isolation and in turn it isolates. In contrast, healthy grief affords the chance to connect and deepen relationships.

[66] Joanna Macy and Chris Johnstone call this wider sense of self the ecological self: *Active Hope*, 85-104.

Personally and anecdotally, in the last few years I have noticed many more online and local communities have been forming amongst activists and those whose ecological concern has risen to the surface of consciousness and who have sought out the companionship of others. My own experience running dozens of seminars related to the topic of this thesis in predominantly church contexts has been of large numbers of people urgently desirous of spaces of honesty, shared grief and renewed ethical deliberation and resolution. This is, I believe, an enormous pastoral and missional opportunity, even necessity, for the church in contemporary society. The climate crisis is an increasingly unavoidable context for the church's discipleship and mission today. There is a great need for communities committed to caring deeply, practically, creatively, sacrificially for the poor, future generations and other species.

Pope Francis offers a compelling integrated vision of Christian theology and ethical deliberation, attentiveness to scientific enquiry and human experience, emotional honesty and active service, personal identity and socio-political engagement. *Laudato si'* presents a picture of human identity grounded in creaturely delight, solidarity with the poor and drawn towards Christian hope that is capable of walking into difficult emotional spaces and discovering the capacity to expand our loves rather than being paralysed by fear. As we come to realise the plight of our common home, we are summoned into genuine, affective and sustained care, expressed in solidarity, community and service.

Conclusion

Christian identity on a warming world

Human induced climate change is a destabilising reality.

This is true ecologically, economically, even geopolitically. It is also true personally and culturally. Some people may have invested their careers into high carbon industries and be reluctant to reconsider the moral implications of that choice. Some may be concerned about the interpersonal consequences of climate change, where taking this issue seriously may threaten existing relationships or their standing in groups to which they belong, having been socialised into understanding that their (political, religious, cultural) tribe has different priorities. Some may find that cherished cultural narratives grow more problematic as they become aware of the causes and drivers of global warming. This may raise anxieties about a loss of coherence, security, purpose or sense of self that may occur if they allowed the reality of anthropogenic climate change to shape their perspective.

I will briefly rehearse five such narratives, all widespread in mainstream Australian culture.

Five dominant cultural narratives challenged by climate change

Discovering that the status quo is on a collision course with catastrophe undermines the widespread belief (especially prevalent amongst political conservatives) that the world is a fundamentally just place, where most people more or less get what they deserve. This is all the more true when people become aware of the deep intergenerational and international injustices of climate disruption. Those who face the worst impacts have usually contributed least to the problem: the global poor, future generations and other species

Noticing that carbon pollution is driven to a significant degree by consumerist demand and a culture of acquisitiveness makes every purchase less innocent. When there exists a multi-billion dollar advertising industry, whose chief goal is to increase consumption, knowledge of climate change can rub painfully against this dominant cultural message.

Wealth accumulation, celebrated as the cornerstone of capitalist culture, can feel at times like little more than placing a numerical value on the ecological wealth destroyed to produce it. Yet discerning the impossibility of entirely decoupling climate disruption from growth in the material economy means a loss of faith in addressing questions of poverty and inequality simply through growing the overall pie. Awkward deferred questions of distributive justice return with a vengeance.

Tracing the links between corporate funding and political favours from the major parties can spread disillusionment with the rhetoric of democratic ideals. The reality is concentrated corporate wealth results in concentrated political power, with the common good eclipsed by narrow vested interests, whether or not the corruption in question was technically legal.

Awakening to the vastly increased agency of humanity (both individually and collectively) due to technological enhancement can be both exciting and terrifying, depending which impacts are kept in view. Yet as people face up to the shadow side of this growing power to destroy (even inadvertently) as well as build, and as it becomes more apparent that human agency is now overwhelming natural resilience, this erodes narratives that place our hopes in the inevitability of social progress or in technological mastery over the world and ourselves.

The loss or compromise of these widespread cultural narratives can be profoundly disorienting and upsetting. These narratives are not ubiquitous in society, and each already had serious reasons to question it, even in the absence of climate change. Catastrophic global warming, however, reveals in a more definitive way the flaws in these beliefs. Therefore, those for whom these ideas were significant in shaping their sense of self, feeling of security or purpose in life will be more rattled by acknowledging a climate crisis than those who already viewed them with mistrust. This is before other manifestations of climate fear are considered, which may well perturb even the latter group.

Two contexts: climate and Christianity

Throughout this thesis, I have tried to keep two contexts firmly in view. The first is the novel challenges the climate crisis engenders for ethical thought. When people awaken to the global climate crisis, especially as they sense the threat it

represents to existing identities, commitments and cherished narratives, strong emotional reactions are generated, with fear typically prominent amongst them.

Chapter One explored the constellation of ethically interesting features found in climate change and the unique shape these give to climate fears, before moving on to explore the ways these fears often lead to the adoption of maladaptive coping strategies, psychological defence mechanisms driven by identity protective cognition that ultimately fail to address the problem, even if they assist in short term psychological stability. Such mechanisms include distraction, denial, despair and desperation. None is particularly conducive to productive ethical deliberation and together they feed into a public and policy discourse around climate that is divisive, dysfunctional and vulnerable to being further exploited by powerful vested interests running deliberate misinformation campaigns to delay serious climate action and so hold open the window of profitable activity for the fossil fuel industry.

To counter this systemic failure to address the root causes of the crisis, some activists and communicators adopt a tactic of emancipatory shock. By confronting public inertia with vivid nightmare scenarios of the long-term consequences of current trajectories, it is hoped that this shock may break through the dysfunction and produce ethical clarity and urgency. Yet in the absence of spaces to grieve, process and seek new (or renewed) alternate cultural narratives, emancipatory shock often tends to reinforce existing social divides. This was the burden of Chapter Two, which explored this strategy with reference to some historically significant texts in the environmental movement.

The second context this thesis has endeavoured to embrace is Christian faith and the communities that form as a result of it. This second framework represents both a personal context for the author as well as a possible case study of how to move forward in stalled climate debates. In general, when faced with seemingly intractable disputes over social and political goods, it is often more persuasively effective to activate aspects of existing identity commitments that may be amenable to the desired outcome rather than seeking to shift fundamental features of those commitments. In particular, this thesis has argued that there are various features of core Christian narratives and convictions that can be used to help reorient seemingly entrenched discussions of climate change.

In particular, the final four chapters of the thesis have offered constructive theological work linking central Christian doctrines and narratives to the new climate context, seeking to articulate a second kind of climate awakening, one that opens up possibilities for ethical deliberation by and with Christian communities. The middle two chapters have a more philosophical flavour with the final two being more extensively and openly theological.

Chapter Three sought to give a theological and scriptural rationale for taking the novelty of the climate crisis seriously. In contrast to those who take the rupture of the Anthropocene to be so decisive as to render all old values and ethical commitments suspect, a theological account of novelty was presented that tied together elements of both continuity and discontinuity, threat and opportunity. Hanna Arendt's notion of natality is a useful resource for viewing new situations as holding the potential for new growth, not just threat.

Chapter Four began with an examination of how fear can easily lead to a self-protective mindset that prioritises survival and instrumentalises others for the sake of that all-important project. Such fear has a tendency towards fascist politics, unless the priority on survival can be subordinated to higher ends. This was contrasted with classical accounts of fear that sought to distinguish the moral worth of different versions of fear, including articulating some of its potentially virtuous and even illuminative functions. The chapter concluded with an examination of apocalypse, apocalyptic and eschatology, distinguishing between the end of the world as we know it and the end of the world. The power of apocalyptic narratives never lay in predicting tomorrow's nightmares, but in giving due weight – theologically and morally – to what is happening today. In the midst of the catastrophes of history, the world has always felt like it was ending. Especially for the oppressed and marginalised, such language has often made good sense: their world was indeed ending in a certain sense.[1] Yet this doesn't preclude hope for God's promised future, even in the darkest of apparent dead ends.

Chapter Five is in many ways the heart of the theological argument. Here the nature of fear as self-protection was brought into conversation with Hans Urs von Balthasar's account of the possibility of anxiety being redeemed in the anxiety of the

[1] I thank Aric Clarke for helping to articulate this insight in recent online communication.

Redeemer. Liberated from self-protective fears, the Christian believer can find in Christ's experience of deep *angst* in the garden of Gethsemane the model and ground for entering into a deep affective concern for the plight of the neighbour. This is a redeemed kind of fear. With the security of the self found in God's love, the way is open for a fear that leads out of the self and towards neighbour. Freed from the necessity of self-preservation, Christian faith can open itself to the needs and suffering of the neighbour in a creative and empathetic attentiveness. Such neighbourliness expands to embrace all those lives that my life touches, including neighbours who may be quite distant in time and space.

Chapter Six took this expansion of moral horizons one step further into discovering the Earth itself not just as neighbour, but as *home*. In conversation with Pope Francis' recent encyclical and some of the texts on which it draws, the chapter offers a constructive theological account of Christian identity that is at home in the community of creation, open to the suffering poor, open to curiosity and new knowledge, open to honest grief and open to hope. In place of the fragile self-protection of an identity built on narratives undermined by climate change, Christian faith offers an identity whose elements are capable of handling global crises without dissolving and thus which can remain receptive to new contexts. If God has said an unshakeable yes to creation, to humanity and to each person in Jesus Christ, then followers of Jesus have no reason to fear the truth, wherever it leads. Indeed, a discipleship that involves regular confession ought to help form a self that is less resistant to the painful discovery of complicity in harm, a self that expects the dominant cultural narratives to be forms of idolatry in need of serious critique and creative resistance, a self that is willing to learn of novel challenges without the need for brittle self-protection.

Practical hope and convincing despair

The Welsh cultural theorist and novelist Raymond Williams often said that it was his lifelong task to "make hope practical, rather than despair convincing".[2] In the face of a challenge as significant as global anthropogenic climate change, with no less than

[2] Cf. Raymond Williams, *Resources of Hope: Culture, Democracy, Socialism* (ed. Robin Gale; London: Verso, 1989).

the very possibility of life on Earth as we know it at stake, it is easy to terrify people into paralysis.

Indeed, this thesis has argued that there is an underlying and widely suppressed reservoir of climate anxiety amongst much of the population, who engage in a variety of coping strategies to keep this dangerous knowledge at arm's length from their daily consciousness. In this they are aided by powerful economic and political forces with much to lose from a rapid shift away from fossil fuels and a high carbon economy. The manufacture of false hopes is one of these very ways that the awful reality of our novel predicament is obscured, both by the vested interests who at times wish to present a public image of action and concern, and by many of those driven by their fears into various forms of activism, who hold onto impossibilities, silver bullets, and vague generalities, and thus engage in various kinds of magical thinking to convince themselves that their hopes are reasonable.

When despair is readily convincing enough, making hope practical as Williams sought to do can be an act of resistance. Yet this project has sought to explore just why despair can itself be illuminating. Hope needs to find practical tasks in which to express itself, but this is not the opposite of honestly facing and embracing the anxieties and fears. Indeed, in order to make hope practical, a brutal honesty about the depth of our problems is required.

Identity and critical distance

Nonetheless, such honesty threatens to disintegrate the integrity of our identity and undermine the stability and coherence of our lives, challenging many of the foundational cultural narratives by which we orient our self-understanding.

This is where a form of identity capable of holding some critical distance from dominant cultural paradigms might offer an alternative space in which to pursue ethical deliberation on a complex and overwhelming topic such as climate change, whose novelties require fresh thought unencumbered by the psychological need for the preservation of ideological commitments to the status quo. This thesis has been arguing that the Christian tradition of scriptural and theological reflection may provide the resources for one such alternative identity. Of course, membership in a Christian community and subscription to Christian belief is no automatic

panacea against the disruptive effects of climate change on our awareness and emotions. Nor are all Christian identities equally robust in the face of such disruption. Indeed, insofar as many Christians have an identity that is more determined by dominant cultural norms and narratives than core Christian doctrines and practices, then their self-understanding and even ideas about God will tend to be a reflection of and accommodation to such narratives. Here belong all notions of God that simply baptise acquisition and conquest through a prosperity gospel, that prop up patterns of oppression and colonialism with uncritical notions of divine sovereignty, or that justify polluting lifestyles and polluted politics through a defence of the status quo as a political concession to allies in the so-called culture wars.

Thus, many of the common theological objections to taking climate change seriously quickly fall apart under even fairly brief scrutiny, relying on exploitative notions of a dominion mandate ("God gave us coal to burn"), overly passive and complacent conceptions of divine providence ("God will not let it get too bad") and/or escapist, world-denying eschatologies ("God is going to let this world burn anyway").

Nonetheless, despite these caricatures of Christian thought generated by a too cosy accommodation of dominant cultural norms, this thesis has been arguing that a recovery of certain traditional and orthodox doctrines can serve to ground an identity sufficiently distant from the ideologies complicit in the climate crisis that it may enable the embrace of even uncomfortable and inconvenient truths about climate change. Only on the basis of accepting and sitting with the realities concerning the scale of the climate threat can ethical thought gain a sufficient sense of the requisite reconfiguration of culture, politics and society that our context demands.

The five dominant cultural narratives mentioned earlier all served to meet basic human spiritual needs: security, identity, justice, power and hope. Each can be contrasted with core Christian narratives that are not threatened by climate change, but which open up a space for thoughtful ethical engagement.

Thus, instead of security in the assumption of a fundamentally just world, security lies in acceptance by a loving Creator. Instead of identity based on the accumulation of toys and experience, identity is received as a member of the community of creation. Instead of expecting justice through the pursuit economic

growth, justice finds its model and motive in a crucified Lord. Instead of power being wielded as the correlate of wealth in political influence, a different kind of power is found in Spirit-filled humble service. Instead of hope being placed in the inevitability of progress or in technological mastery, hope springs from the divine promise foreshadowed in the resurrection of Christ.

Beyond cycling and recycling: personal and political

A necessary correlate of the argument of this thesis is a thoroughgoing political and social analysis that can trace the ways that our inner dysfunctions are both cause and symptom of our systemic failures to address climate change, and identify the points of potential leverage to effect system change. An ethics of climate change will require far more than individualistic or consumer lifestyle modifications, more than technological cheerleading for one's favoured form of clean energy generation, more than wishful thinking about the boundless capacity of human society to adapt to change.[3] In acknowledging both the scale of the threat we face and the failure of the political authorities globally to respond in anything like an adequate fashion over many decades, it will need to expose the complex and varied roots of the crisis in philosophical tools of instrumentalist reason, theological denigration of material reality, cultural idolatry of consumerism, geopolitical structures of neo-colonialism, political dysfunctions of corporatist corruption and the near ubiquitous presence and influence of global capitalism. Such an analysis is beyond the scope of this project, but it is crucial to stress that my argument here leads into, not away from, a re-politicisation of climate action.[4]

As was noted near the outset, this text is an exercise in clarifying the conditions of possibility – theologically and psychologically – for such a deliberative task. Working out what we ought to do requires that we have some grasp on an identity of the "we" who is to do it, an identity capable of confronting the dire threat

[3] For a succinct criticism of approaches that depoliticise through overemphasising personal lifestyle changes, see Michael F. Maniates, "Individualization: Plant a Tree, Buy a Bike, Save the World?" in *Global Environmental Politics* 1.3 (August 2001): 31-52. Cambridge, MA: MIT Press.

[4] I note with appreciation numerous recent texts, both Christian and secular, that have contributed significantly to precisely this urgent need; Michael Northcott, *A Political Theology of Climate Change* (Grand Rapids, Mi.: Eerdmans, 2013); Naomi Klein, *This Changes Everything: Capitalism vs the Climate* (London: Penguin, 2014); Christopher Wright and Daniel Nyberg, *Climate Change, Capitalism, and Corporations: Process of Creative Self-Destruction* (Cambridge: Cambridge University Press, 2015).

of our age without retreating into any of the various forms self-protective cognitive dissonance, and thus an identity capable of honesty, grief and renewed action. This thesis has therefore attempted to articulate some of the resources within the tradition of scriptural witness and Christian theological reflection that can help to ground and flesh out one example of such an identity.

At the core of Christian identity is repentance and faith: a turning from and a turning to, "turn[ing] from idols to serve the living and true God" (1 Thessalonians 1.9). This turning is also both decisive and iterative: it is a fundamental existential reality and an ongoing ethical obligation. This turning is both a personal and a supra-personal act, since idolatry, like all worship, is a communal activity, a mode of being and attention that forms, shapes and sustains common life. So faced with contemporary idolatries, the Christian gospel calls for a response that is not simply personal repentance (though certainly not less than that), but is also a new birth into a community of hope in which resistance to that idolatry is made possible. Therefore, repenting from the dominant cultural idolatries, discovering forms of resistance to systems of oppression, and building alternative communities based on a logic of grace not competition all lead us into interpersonal and political experiences. While this thesis has focused more on the personal and even psychological side of that spectrum, this has primarily been a consideration of scope rather than a commitment to the priority of the personal over the political.

Remember who you are: Christian identity on a warming world

The distinctive contribution of this thesis to the field of Christian ethics is in engaging at length with the emotional aspects of responding to climate change, especially fear, and then linking these experiences into a robust theological account of identity that is capable of walking into difficult spaces rather than needing to retreat into one or more psychological defence mechanisms to cope.

I have sought throughout a mutually illuminating relationship between Christian faith and the contemporary climate context. The waking up of the title is thus, as was mentioned from the outset, a double awakening. On the one hand, I have written of a wakefulness towards the disturbing realities of global climate disruption and its consequential disruption of ethical deliberation. On the other, I have sought to

articulate some prospects for Christian thought that open up as a result of paying attention to the climate crisis, an awakening to the potential for climate to act as a catalyst for ethical renewal amongst the churches.

In every age, the church has been confronted by pressing moral and social challenges, complex problems that resisted simple solutions and which demanded faithful ingenuity in discerning the shape that the good news of Jesus might take in a new context.

It has been my contention throughout this thesis that the harm we are doing to our neighbours, ourselves and God's good world through degrading the habitability of the planet is an unavoidable context for the church's mission and discipleship today. I have not here sought to flesh out a constructive comprehensive ecological ethic for that context, let alone a political ecotheology that may accompany it. Instead, I have focused on the prospective benefits of activating certain elements of Christian identity.

The fears generated by awakening to the novel predicament of our climate crisis can be paralysing, but they can also be an invitation onto a journey into care and action. A certain kind of fearfulness – transformed and converted from self-obsession into a deep affective concern for the plight of neighbours suffering injustice – is, I have argued, necessary to ensure that ethical deliberation on climate change is not captured by the defence mechanisms of some of the dominant ideologies that led us into our crisis in the first place.

Yet the work of having paralysing fears redeemed is the work of making fear the servant of love, lest its political application become yet another form of oppression.[5] Climate fears can easily be abused, which is why seeking a proper use requires a robust communal identity committed to higher goals than mere survival and higher authorities than human institutions and laws, and committed to solidarity with both the poor and the more than human world in order to resist the potential for those fears to be co-opted in service of the maintenance or even extension of extant power structures.

[5] Corey Robin, *Fear: The History of a Political Idea* (New York & London: Oxford University Press, 2004) is a useful account of the ways that fear can become manipulated as a political weapon. See also Michael Northcott's perceptive essay, 'The Liberalism of Fear and the Desire for Peace' in *Politics and the Emotions: The Affective Turn in Contemporary Political Studies* (eds. Simon Thompson and Paul Hoggett; New York: Continuum, 2012).

Therefore, in the face of a novel, ongoing and highly unjust climate crisis, the good news of Jesus offers a crucial injunction to Christian communities and believers to remember who they are: members of the community of creation, beloved children of God, gripped and made restless by resurrection hope and whose fears are redeemed in the Redeemer's fear, freed from self-regarding anxiety to enter into the plight of their neighbours, and bearing a new heart that does not conform to the pattern of this world but which is capable of humble, honest, grieving, hope-filled care in a community of faith and forgiveness.

Appendix A

The Song of the Three Children[1]

35 'Bless the Lord, all you works of the Lord;
sing praise to him and highly exalt him for ever.
36 Bless the Lord, you heavens;
sing praise to him and highly exalt him for ever.
37 Bless the Lord, you angels of the Lord;
sing praise to him and highly exalt him for ever.
38 Bless the Lord, all you waters above the heavens;
sing praise to him and highly exalt him for ever.
39 Bless the Lord, all you powers of the Lord;
sing praise to him and highly exalt him for ever.
40 Bless the Lord, sun and moon;
sing praise to him and highly exalt him for ever.
41 Bless the Lord, stars of heaven;
sing praise to him and highly exalt him for ever.

42 'Bless the Lord, all rain and dew;
sing praise to him and highly exalt him for ever.
43 Bless the Lord, all you winds;
sing praise to him and highly exalt him for ever.
44 Bless the Lord, fire and heat;
sing praise to him and highly exalt him for ever.
45 Bless the Lord, winter cold and summer heat;
sing praise to him and highly exalt him for ever.
46 Bless the Lord, dews and falling snow;
sing praise to him and highly exalt him for ever.
47 Bless the Lord, nights and days;
sing praise to him and highly exalt him for ever.
48 Bless the Lord, light and darkness;
sing praise to him and highly exalt him for ever.
49 Bless the Lord, ice and cold;
sing praise to him and highly exalt him for ever.
50 Bless the Lord, frosts and snows;
sing praise to him and highly exalt him for ever.
51 Bless the Lord, lightnings and clouds;
sing praise to him and highly exalt him for ever.

[1] "The Prayer of Azariah and the Song of the Three Jews" in *The New Oxford Annotated Bible: New Revised Standard Version with the Apocrypha* (New York: Oxford University Press, 2010) 1544-1547.

52 ‘Let the earth bless the Lord;
let it sing praise to him and highly exalt him for ever.
53 Bless the Lord, mountains and hills;
sing praise to him and highly exalt him for ever.
54 Bless the Lord, all that grows in the ground;
sing praise to him and highly exalt him for ever.
55 Bless the Lord, seas and rivers;
sing praise to him and highly exalt him for ever.
56 Bless the Lord, you springs;
sing praise to him and highly exalt him for ever.
57 Bless the Lord, you whales and all that swim in the waters;
sing praise to him and highly exalt him for ever.
58 Bless the Lord, all birds of the air;
sing praise to him and highly exalt him for ever.
59 Bless the Lord, all wild animals and cattle;
sing praise to him and highly exalt him for ever.

60 ‘Bless the Lord, all people on earth;
sing praise to him and highly exalt him for ever.
61 Bless the Lord, O Israel;
sing praise to him and highly exalt him for ever.
62 Bless the Lord, you priests of the Lord;
sing praise to him and highly exalt him for ever.
63 Bless the Lord, you servants of the Lord;
sing praise to him and highly exalt him for ever.
64 Bless the Lord, spirits and souls of the righteous;
sing praise to him and highly exalt him for ever.
65 Bless the Lord, you who are holy and humble in heart;
sing praise to him and highly exalt him for ever.

66 ‘Bless the Lord, Hananiah, Azariah, and Mishael;
sing praise to him and highly exalt him for ever.
For he has rescued us from Hades and saved us from the power of death,
and delivered us from the midst of the burning fiery furnace;
from the midst of the fire he has delivered us.
67 Give thanks to the Lord, for he is good,
for his mercy endures for ever.
68 All who worship the Lord, bless the God of gods,
sing praise to him and give thanks to him,
for his mercy endures for ever.’

Appendix B

The Canticle of the Sun (St Francis of Assisi, 1224/26)[1]

Most high, all powerful, all good Lord! All praise is yours, all glory, all honour, and all blessing. To you, alone, Most High, do they belong. No mortal lips are worthy to pronounce your name.

Be praised, my Lord, through all your creatures, especially through my lord Brother Sun, who brings the day; and you give light through him. And he is beautiful and radiant in all his splendour! Of you, Most High, he bears the likeness.

Be praised, my Lord, through Sister Moon and the stars; in the heavens you have made them, precious and beautiful.

Be praised, my Lord, through Brothers Wind and Air, and clouds and storms, and all the weather, through which you give your creatures sustenance.

Be praised, My Lord, through Sister Water; she is very useful, and humble, and precious, and pure.

Be praised, my Lord, through Brother Fire, through whom you brighten the night. He is beautiful and cheerful, and powerful and strong.

Be praised, my Lord, through our sister Mother Earth, who feeds us and rules us, and produces various fruits with coloured flowers and herbs.

Be praised, my Lord, through those who forgive for love of you; through those who endure sickness and trial. Happy those who endure in peace, for by you, Most High, they will be crowned.

Be praised, my Lord, through our Sister Bodily Death, from whose embrace no living person can escape. Woe to those who die in mortal sin! Happy those she finds doing your most holy will. The second death can do no harm to them.

Praise and bless my Lord, and give thanks, and serve him with great humility.

[1] Translated by Bill Barrett from the Umbrian in the *Assisi Codex*. Online: http://www2.webster.edu/~barrettb/canticle.htm.

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